

## by Jane Feinman

## Tough test for training

...in a way that many courses  
...offered, failed to provide.

## Outstanding re

by Laura Kaufman

rejected all schemes for trying to divide overseas students into those from all rich countries and others.

# search grant app

Statistical Supplement to the Twelfth Annual  
GLSD RHY-1123

**Applications decline**  
Hospital Medical School and partly

12.5 10.8 10.7 10.2  
port 1973-74, UCCA, Cheltenham, Glos.,

## Inequality blamed for poor job prospects

Printed and published by Limited at New Printing House, Gray's Inn Road, London E.C. 1A, England. Friday, September 16, 1978. As a newspaper of the Post Office, it has postage paid at New York, N.Y.

NO:

The schema has been developed by a working party of members of the university, the college and the polytechnic. It has been encouraged

Lancaster University there will  
7 per cent increase to admis-

Charles Carter, tap, and Mr. W. L. Moore.

ts. The three geography degree  
ses had also been filled and

the development of the software is much to the energy and enthusiasm of Mr Moore, who argues that A-levels are totally inappropriate for adults—largely because they are designed to follow a five-year school course and are aimed at up to 19-year-olds in full-time

continued on page 28

Mr. James Drevet, vice-chancellor of Dundee University, said he would come a Government recommen-

Full story page 28.

Shakespeare, Thackeray, Charlotte Brontë, 17th and 18th century poetry

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1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

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# Rape of reason

Keith Jacka, Caroline Cox and John Marks are lecturers at the Polytechnic of North London. In their book *Rape of Reason* they give an eye-witness account of the past few troubled years at PNL. They argue that the polytechnic has suffered a sustained attack by Far Left revolutionaries and that the authorities failed to take appropriate action. In this edited extract from the final chapter "Challenge and Response" they explain how higher education should defend itself against what they believe to be the enemies within.

The ominous trends exemplified by PNL are not peculiar to it, and would not disappear if this college were to be encapsulated or closed down.

The troubles at Oxford University during 1973-4, involving many of the characteristics we have already described: deliberate disruption on spurious pretexts, manipulation of meetings, organised Far Left political groups (International Socialist Movement, Marxist Group), threats and intimidation, contempt for disciplinary proceedings and a leaflet harrangue.

In his annual report the senior proctor of the university said that it would be very dangerous to be guided by the view that these are youthful excesses which ought to be ignored.

"... because there is a small, but important, minority which is determined on disruption... whose excesses... are deliberate and purposeful. They demand to be treated in the most liberal spirit. Yet they view the principles of liberalism and of reasoned discussion with contempt".

The proctor concludes: "Never, no matter what the temptations to buy peace and hope for the best, never under any circumstances, should the university make any concessions which will in the slightest impair its powers to defend itself. We found its present powers barely sufficient."

Thus Britain's oldest university is attacked in the same way as one of its newest polytechnics. Other universities which have been afflicted include Essex, Lancaster, Cambridge, Sussex, London (LSB) and Kent.

Using the latest weapons and tactics, with a realistic analysis and a clear plan of campaign, the Left-wing totalitarians are waging war on the academy as a key institution in modern society. With few exceptions the academics have proved inept at self-defence. We offer some prescriptions for survival drawn from experience in Britain, the United States and West Germany.

We have argued that an academy must manifest the spirit of tolerance, of respect for other views, of the supremacy of persuasion, of concern for hard facts and analysis. It must be devoted to truth and to the pursuit of knowledge. Institutional practices and structures of government must accord with this definition. All serious attacks on the academy aim at these central values and the structures which embody them.

The would-be destroyers of academies have national organizations, and their attacks are carefully planned and coordinated. To be successful the defenders must also organize nationally and internationally to pool their intelligence and experience.

The law of the land applies everywhere. Likewise the internal codes of academies within a state should be in harmony. The destroyers know that higher education is indivisible. Their opponents must act similarly. In particular, the universities and polytechnics in Britain must combine to defend themselves.

We therefore suggest that a national working party on higher education be established to draw up a bill of rights and responsibilities, which should be adopted by all institutions of higher education.

We suggest that the members of the working party should be mainly, but not entirely, academic, and should include representatives of the Committee of Vice-Chancellors and Principals and the Committee of Directors of Polytechnics.

We suggest also that there be established a standing committee, permanently available as an expert external source of advice and help for any institution subjected to disruption.

We contend that a commitment to dispassionate scholarship, balanced appraisal of issues, and honest criticism should be the concern of all members of the academy at all times. But such principles will not automatically prevail, especially if there are members of the academy who flout and exploit them. Hence



Confrontation at PNL. From THES, November 22, 1974.

Daily Telegraph

the great importance of communication. Regular, accurate and well-written information should be disseminated by the administrative and academic leadership to all members of the institution on all matters of importance. Every opinion-forming document, either deliberately or inadvertently, should be immediately and persistently corrected.

Another aspect of communication is the first impression of the academy that the student receives. The far left in PNL are shrewd tacticians; this is clearly shown in their policy of all-out indoctrination of students during the vital first weeks.

We commend the practice of certain institutions, such as the London School of Economics, who do not permit this to happen. Their induction programmes are organized by academic staff alone.

A student whose first impression of an academy is favourable will be the better learner because of it. The main responsibility here lies with the academic staff, for they are at the heart of all academic endeavours.

The disastrous performance of the PNL academic board, with its large number of student members, could have been predicted. It may serve as a warning of what to expect if political criteria take precedence over academic ones. It is likely that other academies will experience pressures for "reform" similar to that prevailed at PNL.

We therefore suggest that national guidelines on academic structure and government should be formulated. The Privy Council has taken some steps in this direction for the universities; the proposed national working party on higher education could complete the task and advise the Department of Education and Science on the application of these guidelines to the polytechnics.

Another critical area covers the constitutions and financial activities of student unions. Clear national guidelines need to be formulated and applied covering such matters as electoral procedures for student union executive positions, representation on the NUS, and the sources and legitimate use of student union funds.

These guidelines might include: limitations on the number of sub-committees and on the number of student seats on academic decision-making bodies—both could be related to the proportion of the student body voting in the relevant elections; national secret ballots for members of the NUS executive; the wider use of referendum, both nationally and locally, for deciding student union policy; the funding of student unions by voluntary subscription rather than by a compulsory levy on the student body.

Another area for national investigation could be the substitution of student loans for student grants. Many will find it hard to believe

that the left-wing totalitarianism could ever be politically effective in Britain. Are they not too few in numbers, and are not the British too deeply liberal by temperament and tradition to support them?

We shall say briefly why we think that at this time the far left is well placed to have a large destructive effect.

The cultural revolution of the 1960s in Britain was an astonishingly forceful assault, obliterating in a few years much of the intellectual and spiritual accumulation of generations. For many people, especially the young, the foundation necessary for any coherent attitude to authority, or for building a new life on liberal values, were swept away. A new mode of sensibility appeared: amoral, nihilistic and trendy.

This cultural revolution—apparently spontaneous—in which Britain was the pioneer for the Western world, was a key event. It made for a defenceless society and it created the indispensable elements—the categories and shibboleths—for the conspiratorial political revolution which is now being attempted.

The Left know too how to exploit the major intellectual gap in a modern liberal theory: the lack of an adequate analysis of authority.

This use of the liberals has been essential in the attack on education. And there are many other influential liberals in British opinion leaders in journalism, the law, economics, politics, for example—who by their failure to recognize these tactics are, however unwittingly, acting as valuable allies of the totalitarians.

In Britain we are now confronting a new extreme form of the liberal dilemma. How willing are we, in our academies and in society at large, to take the steps necessary to defend our institutions? And what will happen if we do not protect them?

A central purpose of this book is to make sure that people in Britain cannot give the excuse (used by many Germans about the events of the 1930s) that they did not know what was happening in their midst. But merely to observe this with indignation is pointless and ineffective because, as Blomberg said, "Indignation is not a category of political action".

The defenders of tolerance must now move to the attack.

Keith Jacka, Caroline Cox, and John Marks, 1975.

*Rape of Reason*, by Keith Jacka, Caroline Cox and John Marks, is to be published on Monday; Churchill Press Ltd., £2.25.

# Polytechnic administration: pyramid or matrix?

Matrix management is a relatively new approach to modifying and supplementing the conventional hierarchical type of industrial organization, which is based on a pyramid of superior-subordinate authority relationships.

The pyramid, as visualized in the typical company organization chart, only shows the static picture of an organization. What matters equally are the dynamic aspects—how an organization works—and the personal inter-relationships created.

Formal relationships are the official authority relationships. In practice, these are supplemented and supported by informal (unofficial) working relationships which cross functional and departmental boundaries, and which link together people with the knowledge and expertise relevant to solving particular problems or completing particular tasks.

In the matrix, these unofficial relationships are recognized and legitimized in order to achieve specified task objectives. But the matrix, whilst it attempts to avoid the disadvantages of the traditional company pyramid organization, does not, and is not intended to, replace the biarchival form of organization.

The need for accountability is still an inescapable fact of life, and there still have to be discussions on resource allocation for which some sort of hierarchy is necessary.

The current application of matrix management in higher education, and particularly in a number of polytechnics, distinguishes and separates the two academic functions of (i) administering courses, and (ii) teaching and research.

In this matrix type of organization, the department disappears, and it is possible, in principle, for an institution to identify both a complete list of courses and a complete list of teaching expertise, based on individual subjects or disciplines.

To practice, particularly for the larger academic institutions, it is normal to group both the courses and the subjects in a faculty network so that each faculty contains a group of related courses and the appropriately related groups of subjects.

Within a faculty framework, it may still be necessary to sub-group the courses, and a term which has been used for these sub-groups is "school". Hence there may be two or more schools within a faculty. Similarly, the term "division" is used to mean a subject or discipline, and there may therefore be several divisions within a faculty.

In the matrix, the teaching function includes not only the actual teaching role, but the development of the subject and allied research. Academic staff are appointed to appropriate subject divisions. This side of the matrix is concerned with human resources, and other kinds of resources may be treated as part of this side, for example, facilities and accommodation.

For each course, a course leader is appointed. He will have no staff whom he can call his own. He is dependent on teaching contributions from the appropriate subject groups. His role is to coordinate these teaching contributions to provide an effective course.

The course leader is responsible for the effective administration of his course. He may be responsible to a board of studies, including some or all of the teaching staff contributing to his course. The course board of studies may be responsible to the appropriate faculty or academic board.

The subject or discipline groups consist of the teaching staff, and each group has a leader responsible for ensuring that the subject is taught adequately, and developed through research. He is responsible for the personal career development and appraisal of his group.

He must ensure that, compatible with the extent of the resources entrusted to him, all teaching requests to his group are met and that the course leaders are satisfied with the contributions to their courses.

The subject leader is himself responsible to a more senior subject leader or a faculty dean. The faculty dean or resource centre controller

is responsible, therefore, for teaching (and other resources), and the course leaders are responsible for courses and students. In a faculty structure, the two roles come into conflict, although they retain separate accountability, at the faculty board.

It has been claimed that the matrix approach, in contrast to the conventional departmental system, is able to provide a more flexible organizational framework which can offer alternative career paths.

It provides for the resource allocator, the subject specialist, and the academic administrator to be recognized and supported, with official parity of esteem and promotion prospects. This form of matrix has therefore some very solid advantages. But there are problems.

A key problem is the relationship between course leaders and subject leaders, who may have different criteria for success. Course leaders are primarily concerned with the success of their own courses, which may be measured by student numbers, exam successes, sponsor satisfaction and so on. Divided loyalties constitute another problem. The teaching staff are allocated to a subject group and, therefore, a resource centre. Yet their operational effort is directed to a range of courses which, organizationally are separate.

This conception of the matrix, therefore, while it may be correct academically, is not necessarily correct in the managerial sense.

John Nelson discusses the application of 'matrix' styles of management to higher education

But it may have forced a recognition that the primary operational activity is the provision of courses. If so, then the primacy of the course leader may have to be recognized, and the subject leaders would be deemed to have a supportive role.

This form of matrix which has been currently developed in a number of polytechnics may perhaps be based on a presumption that the deficiencies of the departmental system are inherent and unalterable.

(If so, it is open to challenge, because if heads of department are held to account for their responsibilities for staff development, appropriate subject development, teaching and research standards, there is surely an intrinsic reason why departmental deficiencies need not be endemic.)

It is a more basic and permanent type of matrix than that developed in the 1950s and 1960s in the American aerospace industry and other types of business activity.

There the matrix was more supplementary, less fundamental: it was temporary, not permanent; it was related to ad hoc problem solving, rather than to basic development; it was dynamic, not static.

One can foresee an application in higher education of a matrix move in keeping with that which has been developed in American business.

This would be a type of project management, which would be temporary, expedient, problem-centred, based on peer groups on a collegial basis. It would never become an alternative to the departmental system, but an adjunct to it.

This form of matrix would identify those with leadership qualities, and help to break down departmental boundaries through the formation of project teams on a cross-department, cross-faculty basis.

Such a form of matrix would be in keeping with the spirit of academic community, where there is—or should be—a respect of expertise and personal authority. It provides evidence of the willingness of an institution to allow natural leadership to flourish, and items to be developed. It may provide avenues for enthusiasm and self-motivation to influence growth and creativity.

Institutions in the public sector, denied the full scope for financial incentives, must surely encourage this or any other form of effort,

where performance standards are essentially voluntary.

An academic institution may also be judged as the ideal type of environment in which the matrix should flourish. Peer relationships exist and can be utilized, rather than having to be created.

This interpretation of the matrix is perhaps a more modest one than that currently practiced. It is less fundamental as an organizational change. It does not replace the conventional departmental system. But equally it does not prevent or inhibit other organizational changes which, for other and appropriate reasons, are needed.

In the context of intense organizational change and pressures, a more limited, supportive form of matrix could be feasible and rewarding. It is an organizational development worthy of careful evaluation. It must now be measured, increasingly, in terms of its resource usage.

The more basic and permanent matrix must be compared with the departmental organization as in its resource usage, if it seeks to be an alternative to it. The more adaptive and extempore matrix forms need to be evaluated just as vigorously, but by different criteria.

The author is head of the department of management studies at Liverpool Polytechnic.

# Fits and starts in the hunt for the invisible woman

Zoe Fairbairns assesses women's studies in the United Kingdom

Most women know what it is to feel invisible, if only because they have sat in a predominantly-male meeting or been addressed as "Gentlemen", or filled in a tax return asking them for details of their wives.

The assumption that all persons are male unless otherwise stated however, is not restricted to thoughtless etiquette or bureaucracy. Scholarship, sometimes at the highest levels, has built into itself a male bias, all the stronger for being unconscious; and women are often only studied as a detail, a special case, a variation, or a joke.

Take history, for instance. In 1825 the British married woman's legal status was little better than that of a slave; now, only 150 years later, it is about to become illegal to discriminate against her.

There is no shortage of "specialist" books on the subject, but many "general" textbooks simply ignore it. The *Age of Reform 1815-1870*, in the Oxford History of England series, for instance, manages index references for Catholicism, children and Jews but none for Women's Liberation.

It provides references for Chartist and Feminist but none for feminism; Ashby, Cobbe and Engels but none for Caroline Norton, Millicent Fawcett, Elizabeth Blackwell, or Pauline Kefkovic. A recent book on 300 years of change in women's position was well titled *Hidden From History*.

It does not just happen in history, of course—and it is not just in history that efforts are being made to rediscover the invisible woman. A pamphlet to be published in

October lists over 60 women's studies courses recently or currently running at colleges, universities and institutes throughout the United Kingdom, and shows that women's role and contributions are being examined and re-examined in a range of disciplines including sociology, literature, education, the arts, politics and anthropology.

Women's Studies in the UK has been compiled by Dr Oonagh Harrington of the University of Wales Institute of Science and Technology, and Dr Margherita Rendall of the University of London Institute of Education.

The courses they describe range from large-scale interdisciplinary courses such as *Women in Society* organised at Cambridge with support from the University Women's Group, to sections of courses whose primary purpose may be different. For instance, a TV programme on *Women in Two World Wars* as part of an Open University course on War and Society.

At Essex University graduates studying for an MA in social history or society can take *History of women and the family* as an option. At Middlesex Polytechnic, complementary studies courses on women and culture, women and fiction and women and art have been held.

Recent courses have also been offered for married women. In Ulster, *Polytechnic Women's Opportunities for Women* began in October 1973, aiming "to stimulate and guide the mature woman who would like to undertake further education or return to active working life, but whose time is low, best in women's position was well titled *Hidden From History*".

Heavy demand for this course led to the establishment of a two-year humanities course, time-tabled to suit the needs of women with young children at school.

Other courses have been more

limited and specific in aim. London University Extra-Mural Department held a weekend course for history tutors in Spring 1973, and a five-day course entitled *Working With Girls* was organised for social workers and teachers at Kensington College in South London in April 1975.

Traditional materials are often inadequate for the teaching of women's studies, and this is both a problem and a challenge.

At Westminster College of Education, Oxford, where third-year students can take a course in the family and society in England 1800-1960, the absence of suitable textbooks has given them the chance of confronting old material in new ways and contributing personally to solutions of historical problems.

The course tutor, however, warns of danger in this approach, particularly of unfounded speculation: "At first students get carried away by material which seems to relate

fairly closely to their own experience," she says.

"If this sort of course is to retain academic respectability, speculation has to be constantly challenged by critical reference to sources. At the same time, it is useful for students to learn how to use their own experience in the light of other evidence."

But however inadequate existing sources may be for some courses, reading lists from individual courses have uncovered a large amount of material. *Women's Studies* in the UK has culled these into individual lists into a list of over 600 titles, classified under 30 subject headings.

This list should be useful to libraries wanting to complete their stock of books on women, as well as to experts and students.

For women studies to develop, research is needed—and a group of women, many involved in the teaching of women's studies, have now established a Women's Research and Resources Centre in London.

The centre is primarily an information exchange. It has on file the names of around 600 people doing research on women, and puts people with similar interests in touch with each other.

Enquiries range from an O level student wanting to know what to write about a lecturer to a woman wanting to co-author a book with her, and a researcher from a conservation group wanting information on how wives' employment affects family consumption.

The research centre is also building up a reference library, and organizes a series of fortnightly seminars at which researchers can give papers and discuss their work. The autumn programme includes "The Researcher and the Nature of Women", "Women, Crafts and Art

History" and "A Feminist Critique of Library Classification Practices". The last of these is not as sexist as it may sound, when one considers the extent to which attitudes are reflected in the arrangement of information: the 15th edition of Dawsey, still in use in many libraries, classified "women in history" among "social problems caused by economic maladjustment", while "women's position in society" appears among "social customs", between "aliquette" and "gynaecology".

It is arguable that a women's studies course is in itself discriminatory and counter-productive; discriminatory in that it puts special emphasis on women, counter-productive in that it perpetuates the idea that women are a separate category and need specialist study.

Although it is interesting to note how often these objections come from people who have thought nothing of teaching male-oriented material for years, they have some validity.

But scholarship has so neglected women that some positive discrimination is necessary; often women's studies only appear discriminatory because of the contrast they offer with accepted standards of scholarship, whose politics are so much more deeply rooted that they do not appear to be politics at all.

Perhaps an ultimate aim for women's studies should be that they become redundant; and a perfect world, where scholarship and information are not controlled by one group whose point of view is then used to define and value the importance of other groups' women's studies will wither.

The *Women's Studies* in the UK, to be published in October, can be ordered from Dr. Pamela Rundle, 71 Clarendon Hill, London NW8, price £1.50. The Women's Research and Resources Centre is at 139 North Gower Street, London NW1.

The author is editor of *Women's Studies* in the UK and a member of the Women's Research and Resources Centre.



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## Doubting lecturers are being converted to the belief that teaching can be learnt

Many lecturers do not like to be told how to teach, but many are interested in their problems and are prepared to give them support.

This need is likely to be fulfilled next month when Southampton University's new department of teaching media (formerly the teaching media centre) in the new faculty of educational studies launches remedial, diagnostic and advisory clinics as part of a development in academic staff training designed to help lecturers with their teaching.

"Clinics are a planned approach to probation", Mr W. J. Allen, director, and Mr Colin Colles, assistant director, of the former centre said. "It means that we are available to lecturers who want to discuss their teaching problems."

"Clinical" activities will include closed-circuit television recordings of lecturers and small group teaching, analysis of marking procedures and discussion of course planning decisions.

Other activities planned are the training of new lecturers, workshops comprising induction courses held termly, and the production of bulletins containing reports on research and innovation in higher education—the first is already out—and the development of research programmes, for example, on the admission of students, interviewing techniques, expectations and progress.

This development is in line with recommendations made this spring by the chairman of the Co-ordinating Committee for the Training of University Teachers to vice-chancellors that adequate funds for the development of academic staff training should be available, especially in view of the agreement reached between the University Authorities Panel and the Association of University Teachers requiring universities to provide adequate training for lecturers during their probationary period.

To carry out these activities in full, the department will need an additional four full-time lecturers and four research assistants or fellows by the end of the next academic year. At the moment, it has a staff of 27-29.

So far the centre has provided advisory information, production and equipment services to all those teaching in the university and the Wessex Regional Health Authority. This new development is a realisation of their philosophy, which has always been that academic staff training and curriculum development cannot be separated from media production and technical support services.

The centre has concentrated on trying to interest lecturers in looking at their methods via a consideration of audio-visual media. However, this is not always an easy job.

"We are still at the evangelical stage and often have to bend over backwards to produce results quickly in order to convince lecturers that we can achieve what we claim", Mr Allen pointed out. "Some lecturers are only interested in research and feel that audio-visual aids are just rubbish, others are only interested in the media and cannot integrate it with teaching."

Another reason why the department of teaching media has so successfully managed the integration of teaching methods and media production is because of its initial "small beginnings" within the department and institute of education concentrating on the development of hardware and their software.

When the existing workshop, owing to growing interest and increasing demand, was expanded and set up with basic equipment such as a language laboratory, a still, a projection equipment and a portable 16mm projector, a part time technical demonstrator was appointed to run practical demonstrations on the operation of the hardware and the preparation of audio-visual materials for the institute's courses.

By 1972 the centre was providing services for the whole of the university, including four teaching hospitals and pre-clinical science departments and had gained an additional lecturer to cope with the increasing demand of the medical school and additional technical staff.

As a result, it became established as an autonomous service unit within the faculty of education, with a director, formerly the senior lecturer in charge, responsible to both the university teaching media committee and to the head and school of education.

Almost two-thirds of the total workload is medical in nature because of the centre's heavy commitment to the medical school, to whom they owe much for their development, and, to the National Health Service: the centre took over in 1973 the Wessex Regional Hospital Board's centre for medical illustration, which provided very similar services for NHS colleagues who were employed in teaching of any kind.

"One of the advantages of this link with the NHS has been our ability to spend more money on equipment than otherwise; this is made valid because of the number of people we deal with", Mr Colles said. "The department is funded both by the university and the NHS, whose contribution represents approximately 60 per cent of the budget."

Because of the merger, half the centre staff moved to a new purpose-built production area which became available in that part of the medical school which is based at Southampton General Hospital. To avoid duplication of equipment and personnel, it was decided to carry out all "still" photography and film and maintenance sections remained on the main site. But some provision for television and tape slide production was found necessary on both sites.

Among other advantages the merger has meant that a 24-hour photographic service is available to lecturers in clinical medicine and at hospitals in the district. In a recent survey carried out by the centre it was estimated that lecturers had approximately 300 jobs are undertaken totalling about 2,500 slides and 600 prints.

Although the centre has always been ready to offer its services, its policy is to encourage individual lecturers to develop their own media staff. "We try to encourage both the university and NHS departments to be self-sufficient in the use of simple items", both Mr Allen and Mr Colles said. "We offer to train lecturers and give advice where necessary, but we let them set up the basic equipment themselves and we are always ready to help with the production of sophisticated material."

If this philosophy of self-sufficiency is carried through to the third stage of the department's development there is little doubt that it will be welcome even by those lecturers who don't believe that teaching can be taught.

Patricia Santinelli

## Like bandaging a broken arm when the patient's spine is shot away

"I come in this course expecting, not a psychological cure, not a quasi-religious conversion, nor a socio-political brainwashing but some practical assistance with teaching problems." So wrote a disenchanted young lecturer at the end of a week's course on university teaching methods.

What had we done to earn that flea in our ears? No more than insist that the art of teaching could not be acquired by following a few rules of thumb or by mugging up on the psychology of learning.

When asked "How do I do it?", we replied: "It doesn't matter how you do it, so long as you do it well." Frustration.

"There are one or two things you can tell me in five minutes which will improve my teaching."

"Probably that is true and we will talk about them later, but we don't think that is the best way of helping you either to judge for yourself how good your teaching is going or to be good at thinking up what to do about it, when it's not." Reasoning.

"O.K. so what is good teaching?" Silence from the tutor.

In essence this kind of exchange is very common on courses for teachers in higher education. Thankfully it is only a minority who feel so alienated and very few who actually remain the feelings after a course. Nevertheless it is a nightmare for the course tutor who is trying to negotiate an intellectual maze under emotional stress. There are so many hares put up by this type of exchange, all worth pursuing, several it is vital to bag if aggression or hostility from the participants is to be avoided. But it is difficult to choose the next steps.

Is it best to get "the one or two things you can tell them" out of the way early on? Progress can be made on that line, a sense of achievement achieved. There certainly are useful points to be made. But what if the tutor believes that

the learner-lecturer has mislaid his or her own learning need? Usually newly appointed lecturers are desperately anxious about how they are going to perform in front of the class—and are eager to learn how they look and whether they can be heard. But once they get used to being up front, most people are adequate public speakers if they take care.

However, few have a facility for analysing their courses from their students' point of view and monitoring developments. Also quite a few new lecturers think of a course as a list of subjects and not what it is they hope their students will learn. Concentrating on a few teaching tips in that situation is like bandaging the patient's broken arm when his spine is all shot away.

But how much should you attempt in a week? On what basis do you decide between doing something limited with a fair chance of success, or trying something much more worthwhile but which is difficult to pull off? The tutor can or may be wrong. What are his responsibilities towards his learner-colleagues: to help them along the path they choose, or chance his own that they will like his path better if only he can reveal it to them?

Then there are the classroom power games. The tutor depicted in the opening paragraph is playing the mandarin. Not only is he willing to bet that he knows what is good for his colleague better than the colleague himself, but he is to be told to tell him what it is; he is to work it out for himself, the learner it begins to look like the old "guess what's in my head" technique.

However, the alternative, which is for the tutor to admit that he does not know better than the learner, can also invite an anxious response (help!) or annoyance ("What am I doing wasting my time with you?"). The most intellectually honest and, you might think, the most admirable

answer to the challenge, "O.K. what is good teaching?" might be "I don't know". At last, a question we can discuss and find an answer to for ourselves.

But the shock of stumbling over a real question, one for which the tutor does not have the answer, can be enormous sometimes—even to academics. The opening question which is real, was from just such a shocked person. Addressing classroom power is not, it seems, always benevolent.

Asking for teaching tips can be a move in a power game from a course participant. The tutor who accepts the assertion from a participant that his business is to give answers may soon find that the special circumstances of the participant's course or subject quite invalidate the usefulness of every suggestion he has to make. A successful rebuttal is they themselves of your business.

All that, and much more, from a five-line exchange. But in a course for lecturers the student is compounded by the tutor often trying to point up attitudes and behaviour in the participants which they themselves do not like in their own students. Occasionally the participants are reviewing the tutor's teaching method compared it with what he has to say about teaching method. The potential for frustrated nerves all round is infinite.

In reality the emotional danger are usually avoided and most teaching staff enjoy courses. But when, as occasionally happens, a course is condemned not only roundly but passionately, another teaching dilemma is set. Does the tutor take the course seriously, involve not taking it at face value?

David Piper

The author is head of the University Teaching Methods Unit of the University of London's Institute of Education.

## A time when spoon-feeding pays

The first three weeks as a student sets the pattern of behaviour for the remaining years. For almost as long as most students can remember, their lives have been dominated by two social evils: home and school. Both were more or less regulated by authorities who made certain demands and who gave a degree of security. Within the space of a few weeks students are separated from both. The change is not usually traumatic but it is sudden.

The student enters new social environments to which adjustments must be made. In many cases these adjustments consist of co-ordinating decisions by the student on how to organise his life. Relatively few are imposed by the authorities. Should he live in lodgings or share a flat? Should he go home at weekends? Will he get up in time for breakfast? When should he study? Will he go to lectures?

Most of these are fairly overt decisions. They have been the subject of investigations and university authorities have some information on them. They know where most students are living. Wardens in halls of residence have some idea of how many go away at the weekend and some go home, some go to see their girlfriends and others become tourists.

They even know the weekly pattern of meals consumed. Librarians know that fewer students use the library on Monday mornings and Friday afternoons than on Tuesdays and Thursdays. One investigation showed that students at university work less at the weekend than sixth formers, and many departments keep records of lecture attendance.

What requires more understanding are the decisions which are less overt and less conscious. They are not small decisions, but ones taken so freely that they become habit-forming very early in the student's course. Secret attention is paid to these.

For example new motives, new friendships and new patterns of work are established. When at school the main goal was to get to college. Having arrived, there is a period when this motivational vacuum is filled. When schoolfriends have gone their separate ways, chance friendships are



In the new environment the first 21 days are very important.

Most of all, the student takes habit-forming decisions to adjust to a new academic experience. The methods and styles of teaching in higher education are different from those experienced at school. Their aims are sometimes very different. There is a need for new study techniques; too, but because it is less evident, these changes are often not made. It is an old cliché, but education is to learn how to learn from lectures, seminars and books.

This is the stage at which compromise is necessary. "Spoon-feeding" is a pejorative term; to advocate its use is likely to be an unpopular thesis. Yet I think that spoon-feeding of a kind is a necessary stage between bottle feeds and complete independence. Lecturers sometimes complain that students expect such digested facts which have been neatly packaged and then diluted for easy consumption and regurgitation. But it should be remembered

that the methods of marking O and A level examinations, the size of their syllabi, and competition for university places have, over the years, created pressures upon school teachers which have been difficult to resist.

What the spoon-feeding should consist of will no doubt vary with the subject. That is one reason why it is the teacher who must give it. It is the transition from background to thinking that many students find difficult.

Even postgraduates need to be trained to get the guts out of an article or book without reading from the first to the last page. They have never been taught how to use a reference book. Too few have been taught to write down questions and their conceptions of answers during lectures, rather than the elusive recording of information.

As part of the year's progress new study techniques are being taught with the organisation clearly stated at the beginning, points itemized, short sentences and slow emphasis of important points. Owing to their uneven background, not only follow-up, but preparatory reading is essential. It should not be beneath our dignity to recommend Scientific American, the "Teach Yourself" series or other simple texts which may be useful levers for those who need help to acquire the language of a subject.

I find it used to make my aims and expectations explicit, not only to October and November. This is partly because subjects are taught in terms of their aims and these are not always stated for the student as he learns more about the particular subject. A lecturer may cherish the hope that students will "remember" the content of his lectures during part of the year for the examinations. Of course they do not. What is important is that in October he is returning to learn. If that is spoon-feeding, I am in favour of it.

Donald Bligh

Donald Bligh is author of a new book Teaching Students and directing Teaching Services in the University of Exeter from where copies may be obtained for £2.50.



## And coming soon to your local campus . . .

A familiar excuse made by potential users for not using audio-visual media is that there is nothing suitable in their subject area and that all films have dreadful commentaries.

This may be justifiable in so far as a number of films with an excellent visual element have commentaries which would make an intelligent undergraduate writhes, but is there anything to prevent the teacher turning down the sound and providing his own commentary? This can be done by using a five-line exchange. But in a course for lecturers the student is compounded by the tutor often trying to point up attitudes and behaviour in the participants which they themselves do not like in their own students. Occasionally the participants are reviewing the tutor's teaching method compared it with what he has to say about teaching method. The potential for frustrated nerves all round is infinite.

HEPL provides an outlet for visual materials recommended for use at university level and not easily available from other sources. They may have been produced abroad or by research and teaching materials produced in institutions of higher education not accessible to teachers elsewhere.

Biology is one of the areas where the use of film is most widespread as so many of the processes studied are essentially dynamic. Two sources of excellent visual material are the Developmental Biology Film Program from America and the Institute for Scientific Film in Göttingen. Many are short, without commentaries, and deal with a single concept; the ones that they can easily be integrated into lecture or laboratory demonstration. For example, time-lapse filming means that the flight of a hummingbird can be slowed down for detailed analysis.

Films made in British universities often deserve a wider audience than that provided by their originating institution. A short instructional film on a chemical technique made at the University of Southampton is, for example, another ie a film made at Leeds University on the extraction of the most of a medieval castle. The department of psychology at the University of Bristol has undertaken two expeditions to Ethiopia to study the Gelede heban and the Barbery spa, and films of both expeditions are now available.

HEPL also makes available for hire historical archive material. The University Historical Film Committee has acted as a recommending agency for films held, for example, in the National Film Archive and with the consent of copyright holders, it has been possible to copy films and put them into distribution. Two short films made by Ivor Montagu during the Spanish Civil War are distributed so, one reel.

A compilation of archive film from the family collection of the Marquess of Linlithgow, showing scenes of the second Marquess's victory in India has just been completed and will be put into the library when accompanying notes have been prepared. This particular service is likely to expand if there is sufficient demand.

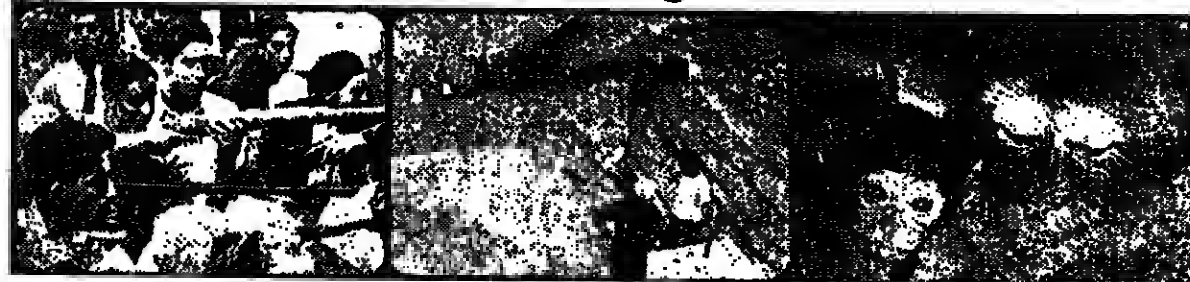
Films are required on written recommendations and the council welcomes suggestions for further acquisitions. It is hoped that the library will, in due course, embrace any former of audio-visual material and that certain titles will shortly be available for sale in video cassette form.

Elizabeth Oliver

Elizabeth Oliver is assistant director of the British Universities Film Council.

Requiesc available from BUFC, Royal College, 72 Dean Street, London W1V 6AA.

## The silver screen shouldn't just dazzle



Some university-made film subjects: Spanish Civil War, archaeology Barbary apes.

but is it not going too far never to feel one can darken the theatre and show a film? Is the lecturer not in danger of monitoring student response too closely?

This kind of comment shows that films are not only emotive in relation to their content but also in the reaction they evoke to their use. This is their strength and their weakness. It is present to some extent in the re-presentation of information but in the interpretative role the emotive aspect is paramount.

Films are selective, they distort, they generalise and are superficial, and the concern this causes in university teaching cannot and should not be lightly ignored. The basis of university teaching is the precision in argument derived from the exact use of words. The whole academic tradition is word based and should continue to be so but it is time we recognized, some 45 years after its enunciation that Bohr's Principle of Complementarity applies, as he himself foresaw, not only to atomic physics but in many other disciplines.

It is necessary in many, if not all fields of knowledge to have complementary information which may, in the case of physics, be contradictory. We need more than just words, which specify our knowledge; we need also to know the background against which we interpret those words.

Films are especially suited to provide the background and context. Individually in stills or by juxtaposition in film. Many universities now use film in this way but when they do so they tend to use films at length. It is impossible to use extracts

of films without the greatest possible care in their selection and their introduction. It is unfortunate that by its very nature, a film, extra, was able to include only short sequences from films designed to involve students. These brief extracts are only likely to confirm the anxieties some teachers have about the emotive effect of films.

The Nelson shorts are particularly susceptible to this argument. The handbook records that there was an argument that raged for many weeks over the inclusion of this particular film. The disagreement was not, however, about whether it was useful in university teaching but whether it was right to include such a harrowing sequence in a compilation film.

Emotionally they seem almost to have taken the point that the sequence would raise emotions but intellectually appear to have missed the point as to whether this kind of emotion is valid in teaching. Surely we do not want the voyeuristic type of emotion generated by shots of victims throwing bodies into a pit. We are horrified but none the wiser.

If we are studying concentration camps, perhaps as an aspect of history, it would seem to be essential for us to try and have some feeling for them. If this is generated, as this handbook suggests, by a short film, which can be more easily integrated into a lecture than complete films, we may find we have generated short, pithy responses in subjects which require a considered response.

It could easily be argued that one of the purposes of a university education is to train students to

consider dispassionately and at leisure something that was an emotional experience, at least in the sense that they were involved.

The handbook discusses the production of films in universities and makes sensible proposals for the encouragement of joint ventures to spread costs. However, again little is made of the interpretative role of production.

The book refers to the "clash of interest between filmmaker and teacher" almost as though this is undesirable. In fact the distinction between the two approaches should be a creative factor. The need to conciliate this expression in a different form represents a challenge to the teacher which the film director should help him resolve.

It is certain that if a teacher decides to use film, as a simple presentation, as a simple pretence, or as something he makes, his awareness of his subject should be enhanced. This will also be true of the student who sees the films. Neither the compilation film nor the handbook seem to envisage this although it is probably the most significant result in using films in teaching. They do not just add information or explain a difficult point in teaching; they are a different form of presentation and their most important role may well be to help us understand the education we are in process of giving and receiving.

Bernard Chibnall

The author is director of the Media Service Unit of the University of Sussex Library and part author of the SSRC Report The Use of Film in University Teaching (University of Sussex 1974).

## Problem lies in finding suitable material

Mike Graham writes the fourth article in our series "The Active Student"

Viewing a recording of an event has certain advantages over seeing it live, because when two people watch the same situation they may see it completely differently. To bring out and compare perceptions and the assumptions underlying them is part of the tutor's job in professional, as in many other, courses.

If the object of the exercise is to provide material which can be used as a common experience, then the camera and director can do a useful service in focusing our attention on specific points. Moreover, if we want to see an "action-replay", the projector or videotape recorder enables us to do so. (VTR with pause and "slow-motion" facilities have an obvious advantage over a film projector in this respect.)

Films about teaching methods, produced before the late 1960s, usually contained a hidden "message" which had been buried very badly. They were made in an instructional style in which the merits of a particular teaching technique were outlined and the viewer was asked to accept it. To achieve their aim of changing students' (or teachers') behaviours, these productions portrayed an educational scene in which all was sweetness and light.

As a result brooding teachers suggested that teaching was a technique, which student teachers just back from teaching practice at a Back Street Secondary Modern became disillusioned and gave up, gracefully, to become second class teachers.

The influence of television documentaries about schools, amongst other factors, forced producers to think again, but by this time teacher-trainers had found an alternative source of audio-visual

material. They could make their own "home-made" films, using a videotape recorder.

First attempts were often at least as boring as the films had been, but for different reasons. Untrained camera crews were fine handing one lecturer in a studio, but classroom scenes were disastrous. "Toy television", as it was called by its critics, developed a poor image for these reasons. However, more BBC/ITV-trained staff moved into education and a few institutions (perhaps with the aid of the National Educational Closed Circuit Television Association), managed to strike the difficult balance between technical acceptability and educational validity.

Even so, an appeal by the Science Teacher Education Project in 1970 for videotapes or films which could be incorporated into a resources bank did not yield enough tapes which possessed these two criteria. We had to produce our own set of purpose-made videotapes with the help of participating universities and colleges.

The potential user of film or videotape is therefore faced with a difficult task in trying to locate and select suitable material. Film libraries which distribute films free of hire charge do not usually give sufficient information on which to make a reasoned appraisal of value. We hope that our collection of film and videotapes (Film Review, McGraw-Hill, 1974), which gives appraisals by tutors who have used a film, will provide a useful reference for tutors wishing to find a film about teaching methods.

Videotapes are not often seen outside the institution where they were made, although institutions using micro-teaching techniques do of course accumulate stocks of relevant material, not intended for circulation. Any circulation of tapes which does exist is done on a personal basis, although the HELPS (Higher Education Learning Programmes Information Service) and CELPS (Colleges of Education Learning Programme Information Service) offer

logues exist to encourage such loans. The "home-made" films have been "shown to" students rather than "used with" them. The difference is between the student being passive or active, and student activities which use film or videotape can be constructed to put the emphasis on the latter.

For example, with a recording which shows children reasoning out answers to a problem in small groups, students can watch the film two or three times and answer questions as they go—perhaps with the aid of a checklist or observation record sheet. Tapes used in this way have to be short, and if possible split up into parts which can be viewed with a break in between, so that the viewer does not become "saturated" with information.

The author is resources officer for

Exeter and editor of Films for use in Professional Courses.



This is a still from Unlabeled (1973). It can be seen that the Western film had already developed several of its characteristic oppositions (East vs. West and figures). The BFI Distribution Library has many Western feature films and shorts of this period. The Heart of Texas from Hell's Barges, The Canyon Woman, The Pony Express, Unlabeled (which have proved useful in courses on the Western and American Studies).

Films from the BFI Distribution Library, 42-43 Lower Marsh, London S.E.1. Books and periodicals from the BFI Book Library, 81 Dean Street, London W1V 6AA. Advice on course construction from the BFI Educational Advisory Service, 62 Dean Street, London W1.



## New York colleges face shutdown

from Thomas Cahill

NEW YORK

Everyone concerned with the management of the City University of New York accepts that its new budget is insufficient to meet its commitments for the coming academic year. There is, however, wide disagreement as to what to do about it.

Recently Mayor Abe Beame reduced the budget to \$355m—or 20 per cent less than he had earlier said was essential for the university. Mr Ewald Nyquist, New York State Education Commissioner, then proposed that the university should cut its enrolment of students who are New York City residents to begin to require a tuition charge of \$650 a year for freshmen and sophomores and \$800 for juniors and seniors—the rates charged by colleges of the State University. (THE, September 19)

Now, Dr Robert Kibbee, the university's chancellor, has revealed that he hopes to meet the financial crisis by merging some of the institutions of the City University. At present there are 10 senior colleges, eight two-year community colleges, a graduate centre, and a connection with the Mt Sinai School of Medicine. Altogether, 27,000 students are served.

Dr Kibbee said that the possibility of a "merger of institutions—or, more plainly, closing colleges—was being explored by a special task force."

The chancellor obviously hopes that this show of willingness to consider radical surgery on the City University will bring forth additional money from the state legislature.

Under present legislation CUNY is ineligible for large amounts of the state's education funds because of the state's requirement that a student be charged at least \$200 a year in order to qualify for tuition fee assistance.

CUNY, having no formal tuition fee, charges only \$55 per semester



New York teachers protesting against school cuts earlier this month; now higher education will also be hit.

as a general fee in senior colleges and \$30 per semester in its two-year community colleges.

Fees for graduate courses are considerably higher, with doctoral candidates who are city residents paying \$750 per semester and non-residents paying as much as \$1,000. Even the graduate fees, however, are relatively cheap for the country as a whole.

Among the members of the Board of Higher Education, which has the power to introduce tuition fees at CUNY, none has been found to favour Commissioner Nyquist's proposal.

One board member, however, has proposed that new limitations be placed upon CUNY's controversial "Open Admissions" policy, which stipulated by the board in 1969, which opened the university to all New

York City high-school graduates, regardless of academic records.

The member recommends "some minimum standard for admission—literally, reading, writing and spelling." She also wants a much more stringent weeding out of unsatisfactory students.

Commissioner Nyquist is strongly opposed to any reversal of the "Open Admissions" policy, claiming that its only effect would be to deny many educational opportunities to New York's poor minorities.

It is a mark of the obviously desperate plight of New York City that in a place where educational expansion has always railed on municipal largesse—no one is even suggesting, let alone demanding, as would be more usual, that the city should cut the cuts that it has made in the university's budget.

## Many innovative courses come 'perilously close to fraud'

from our correspondent

STANFORD

Some American higher education institutions were running "perilously close to fraud" in new course programmes designed to attract students and to overcome financial difficulties, a meeting of Japanese university administrators at Stanford University, California, has been told.

"The frenzied search for funds and students needed to preserve the 'old' individual endeavours in into practices which are questionable at best," said Professor Levia Mayhew, professor of education at Stanford.

He was addressing 44 Japanese private university administrators from 26 United States on a tour organized by the Private Universities Union of Japan to study higher education developments and trends.

Professor Mayhew said that American institutions had been forced to "identify and compete for new markets". Admission campaigns had been intensified and "codes of recruiters" were sent

into areas already well serviced by existing institutions. Community colleges had been set up to provide a "second chance" for students who had failed to gain entry to a university.

"The quest for new clients has led to some interesting new programmes which, judged by conventional standards of educational quality, appear quite valid, but have also led to programmes which come perilously close to fraud," said Mayhew.

One institution, by assigning a great deal of academic credit to life experience, advertised a bachelor's degree in one year. It offered a masters' degree in one year and, with another institution, offered a doctorate for individuals who had gained practical experience in a particular field.

In 1973 alone, Professor Mayhew said, some 45 new law schools were created, the majority of which offered work in the evening or through independent study, and coupled with life experience, schools enabled future lawyers to obtain a law degree in four years.

## Liberal arts programmes stressing job relevancy

from Frances Hill

NEW YORK

The place of "occupation-oriented" courses in liberal education has become one of the liveliest issues in higher education, giving rise to a stream of publications, of which the most recent is the survey, *The Liberal Arts and the Liberal Tradition*.

State universities, although cushioned to a certain extent against economic pressures by guaranteed public funding, have been as active as private ones in making moves towards "career-oriented" programmes within liberal education.

These universities stress the sort of students—first-generation, working-class and often older than the norm—who are most concerned about their future career prospects.

State governments, too, reacting to the resulting increase in student demand for job-oriented courses, have been putting their own pressure on state-run universities. It has, in fact, been within the public sector that some of the most radical innovations in favour of increased vocationalism in liberal education have been introduced.

In the community colleges—public two-year institutions awarded associated degrees—about 30 per cent of the students are now taking some form of occupational training. Only a few years ago the proportion was much lower, with career-oriented courses regarded as "not quite clean," according to Sidney Marshall, former US Commissioner of Education.

Four-year universities and colleges—both public and private—have been slower to introduce career-oriented courses within liberal arts programmes, partly because of greater resistance from faculty members, many of whom feel threatened by non-academic curricula.

Although a great many four-year institutions have devised various types of schemes to give an occupational slant to liberal arts courses, few have introduced actual vocational training. Lambeth College, a small liberal arts college in Tennessee, is unusual in developing a motel management course for hotel arts students in association with the Holiday Inn chain of motels. It is indicative of the nature of student demand that the course has been "an overwhelming success".

The State University of New York at Brockport, traditionally a liberal arts college, has also gone further than most four-year institutions in offering students the chance to spend their third year at a nearby technical college, taking a "technical programme" which will reinforce their "academic" work.

major and give them an associated degree as well as a BA.

Most four-year institutions, however, are taking more tentative steps towards career education within liberal arts programmes. New York University and Columbia among private ones, and the University of California among public ones, have been particularly active in this regard.

A few universities, such as Brandeis, a prestigious private institution, have already introduced courses in "economics of health" or "economics of health" course have been developed this year at Brandeis's health studies programme, covering "policy problems in the health field" as well as the medical aspects of health care.

Several institutions have launched "competency learning" programmes to give students specific skills likely to prove useful in future careers. These include training in the use of particular tools.

But by far the most extensively used type of career-oriented programme in higher education is "cooperative education". This provides students with a period of practical experience outside the institution, in a job or in a business or other field, before returning to the academic subjects.

Cooperative education has increased dramatically in the past few years. In 1973 370 universities and colleges had work experience programmes; the number is now 536, at a conservative estimate, and more probably between 600 and 700.

One of the reasons for cooperative education's gain in popularity is that it has received large-scale federal funding. Over 300 institutions have received grants totalling \$10.8m to fund work experience programmes, with each institution receiving an average grant of about \$30,000 a year for three years.

Work experience "cooperates" with other forms of occupational training, but for the most part students study within their institutions, working on their own time and in their own way, often in a part-time capacity.

Many institutions grant "credit" to students for their periods of work, but faculty resistance has prevented this from becoming a universal practice. In some institutions cooperative education programmes have withered and died as a result of departmental refusal to grant work experience credits.

70 per cent of students in cooperative education receive credits for work.

West Germany

## Clampdown on overseas entrants

by Günther Kluss

Foreign students from countries outside the EEC will find it more difficult to get a place at a West German university under new conditions for admission drawn up by the government.

The new requirements will be additional to those already enforced by individual universities (relating to basic entrance qualifications and competence in the German language) and will supplement the restrictions imposed by the admissions procedure of the Central Admissions Office in Dortmund (8 per cent of all available places are reserved for foreign nationals).

It will now become obligatory for would-be foreign students—again excepting EEC nationals—to obtain a visa from the German embassy in their home country. They will also have to show that they have enough money to finance their studies.

The government is clearly anxious to reduce university places blocked by foreign students who might never finish their course. Even more so, it is keen to prevent many failed foreign students from competing with German students for jobs.

In addition, overseas students will now be permitted to stay for only one year after having obtained their degrees in gain practical experience before returning to their home countries. This is said to be both in the interests of the Federal Republic and their country of origin. There are, for example, at present some 5,000 German-trained doctors from Egypt, and 30 per cent from Iran, including 2,282 from Iran and 1,388 from Indonesia.

The new regulations bring to an

end what used to be one of the more liberal admissions policies among major European countries. American students (3,429 or 12.7 per cent of all foreign students in 1971/72) and particularly those from the United States (2,105) should not find it too difficult to overcome these new hurdles, however.

In prospective students from developing countries, on the other hand, and especially to the poorer ones among them, these new regulations might be a real obstacle. Among the 37,000 foreign students registered at German universities in 1971/72 (7.3 per cent of all registered students) 47.3 per cent were European, 1,906 or 7 per cent came from Africa, including 542 from Egypt, and 30 per cent from Asia, including 2,282 from Iran and 1,388 from Indonesia.

The new regulations bring to an

Sweden

## Applications begin to pick up again

from Miko Dueckhoff

STOCKHOLM

For the first time since the graduation ceremony of the last year, 1974, and early 1975 an increasing number of Swedes have applied for university and college places this year.

Figures released by the Office of the Chancellor of the Universities show a 4.2 per cent increase in applications for places on courses with restricted entry beginning this autumn. Taking first choices of course only, there were 6,709 applicants competing for the 5,746 available places.

Strongest demand for these courses was for the study of medicine, veterinary science, dentistry, agriculture and pharmacy, all of which required average school marks above 4.17 on a one-to-five scale.

Despite the increased number of applicants, however, some courses, including several of the technical sciences, metallurgy and chemistry, still have empty places. Chemistry has been especially unpopular, and with only five places still unfilled, last-minute applications are being accepted.

Although overall the tide appears to have been turned, there is still a long way to go before the number of prospective students approaches the peak of autumn 1969 when there were 14,000 first choice applicants for 6,151 places.

The autumn figures for the restricted faculties complete the change begun this spring when the number of students applying for places in the free faculties rose.

In Sweden, students can start their studies at the beginning of either of the two university terms, and this spring, while attrition to the restricted faculties dropped a further 7 per cent, those for the "free" faculties rose by 9 per cent.

The biggest improvement was for the humanities (up 13 per cent), social sciences (up 11 per cent), and the unrestricted faculties, mathematics and natural sciences (up 5 per cent). Only law, down 2 per cent, showed a significant continued decrease.

Two additional trends this autumn have been the increasing number of first degree degrees to enhance employment prospects and courses in preparation for the examination of UG8 in two years' time, when mature students will be able to obtain a degree without school leaving certificates.

Eight more subjects have been added to the open-ended list of subjects, including economics, history, statistics, commercial law, and physics, bring the total of subjects to 40.

The "choice" in mature student entry has been much to do with the downward trend of the faculties in admission numbers. In 1969, when the decline started, only 26 per cent of male and 13 per cent of female first-year students were 25 or older. Now at one university, Göteborg, they account for as many as 40 per cent of first-year students in all years.

Holland

## Budget proposals will mean halt to expansion

from Lynn George

AMSTERDAM

Higher education is to receive £338m from this year's £3,027m education and science budget. Although the figure represents a slight increase on last year the extra money largely reflects the soaring costs of maintaining existing commitments rather than the launching of any new ones. Indeed, the budget's tone is as far as the universities are concerned is one of "make-do".

Apart from a £5.4m subsidy towards the country's proposed eighth university in Limburg no extra capital is available for new university buildings this year. However, a grant of £1.7m has been made available for maintenance to existing buildings and apparatus.

University research will also feel the pinch. Only the Netherlands Organisation for the Advancement of Pure Research, one of the country's foremost establishments for sponsoring government research funds in the universities, collects an extra subsidy. This is a £240,000 increment to its £1.5m research and scientific and humanities research and to enable university work groups to participate in international activities.

A £10.7m a year government saving is made in the budget by subsidy cuts to the universities. Hospitals although this is offset by pushing the nursing tariff up for patients by over £5 a day. An extra 415 personnel will strengthen university staff by 1.3 per cent

while the growth rate in students is expected to increase by 5 per cent.

Because of this, and because of rising graduate unemployment and a 16 per cent increase in last year's university applications, a serious crisis is expected to develop again in the new budget year.

One of the major tasks facing Dr Ger Klein, Higher Education Secretary, during the coming year is to work out a permanent admissions policy to replace the present system of classing students as "open" or "closed" on the basis of their school leaving marks.

A key policy memorandum to reform higher education studies will be announced in early 1976. In the future it is intended that a university education will no longer be exclusively for young school leavers but for the labour market providing a classed slant of suitable highly paid jobs. Mature students, as well as those who wish to alternate work with study, will also be admitted.

Thus, to cater for mass participation in higher education at age 18, the memorandum would encourage quicker and more flexible returns in research investment.

Financially, the figures tell their own story. In 1968 the recurrent grant for university research amounted to Fr6,801 (£9.5m). New research programmes accounted for a further Fr2.1m. By 1975 recurrent grants had moved upwards to Fr3,044, a decline in real terms of more than 30 per cent. At the same time new programmes now amounted to a mere Fr18m.

Independently of the whims of successive governments, the fluctuating economic situation and society research spending is also subject to variations in student intake. Up to this year the universities have been largely financed on a per capita basis with science and medical faculties receiving more than other departments to cover the cost of laboratories and research equipment.

In the early 60s, with a growing student population and keen interest in science and technology subjects, the system favoured expanding research. More recently, however, disenchanted with science and the falling off of the population boom have led to stagnation and a drop in enrolment in science faculties. In addition, the sixth quinquennial plan has failed to keep its promise of higher research investment—thus leaving many of France's science faculties with large research teams and empty coffers.

In an attempt to avoid closures of laboratories and the dismantling of research teams universities have

France

## Government prepares for major research decisions

from George Morgan

NICE

October is sure to be a crucial month for the future of French scientific research. With the seventh quinquennial plan due to begin in January, Ministerial officials and top scientists will be discussing, somewhat belatedly, the hammer and sickle details of government policy and anticipated expenditure for the next five years.

At the same time inter-Ministerial meetings, chaired by President Giscard d'Estaing, will be discussing measures aimed at relieving the current crisis in research stemming from diminished resources and changing governmental priorities.

None of the major state-sponsored research bodies—responsible for more than half of France's non-military investigation—has escaped the effects of the reinforcement policy which has dominated the government's research effort over the past seven years. State spending on research in 1975 stood at only 70 per cent of the 1967 figure in real terms while the percentage of the GNP devoted to scientific development has slumped over the same period from 2.3 per cent to 1.5 per cent. The 1972 budget would have resulted in a 10 per cent increase in research spending, but it will do little to reverse the steady and deliberate downward trend.

Hardest hit by successive austerity budgets has undoubtedly been university research. In France the national research bodies such as the Centre National de Recherche Scientifique (CNRS), the atomic research centre (CEA), or INSERM, the medical research body, employ full-time researchers who are generally quite distinct from university academics who must combine research and teaching. A recent meeting of the Conference of University Presidents spelt out a warning for the future of university research which, it was felt, was suffering from competition from these bodies. With their concentration on non-applied research the universities had been neglected in research funds which were designed to encourage quicker and more profitable returns in research investment.

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In an attempt to avoid closures of laboratories and the dismantling of research teams universities have

had recourse to two major expedients. The first involved closer collaboration with the CNRS in one of its 210 laboratories sited on university campuses. Although this solution is generally acceptable in France, university researchers, the drawback lies in the fact that the CNRS prefers to call on established research teams rather than younger postgraduate students.

The second solution involves research contracts with major industrial firms. At present, Paris-Sud, although an extreme example, claims to derive more than 75 per cent of its research budget from this source. Contract research, however, is less popular in university circles in view of the constraints it places upon the free development of research programmes. By entrusting the universities of guaranteed state resources, it is thought that the government is deliberately attempting to steer university research towards more "profitable" forms of investigation.

The problem in the universities is further aggravated by the plight of post-graduate researchers. State awards for third-cycle students are limited both in number and in value. In 1975 the maximum allowance was Fr6,000 a year and was available for only two years whereas third-cycle doctorates almost always require three years' full-time research. Recent grant increases have given priority to post-graduate students but universities still have to draw heavily on their own resources to subsidize them. Meanwhile, many of the best brains prefer to go directly into industry.

To stop the rot, the Conference of University Presidents has called for a number of urgent measures. Among them is the ability of the newly established scientific councils within every university to implement a coherent research policy, the presidents made a plea for more state aid, including higher grant levels for post-graduate students. The alternative would be to encourage quicker and more profitable returns in research investment.

One hopeful sign is that M. Jean-Pierre Soisson, Secretary of State for Universities, who has overall responsibility for the CNRS, has introduced a number of reforms to allow a more efficient use of existing resources. These include the setting up of a Committee for the Coordination of Scientific Research (CCRS).

Coupled of representatives from the CNRS, the universities and the Delegated Federal General de Recherche Scientifique et Technique, its purpose is to select and co-ordinate research programmes in the universities and CNRS laboratories while adapting them to regional and national requirements. The plan also includes the setting up of a Committee for the Coordination of Scientific Research (CCRS).

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## Medics fight 56% increases

Medical students at George Washington University in Washington, DC, are suing to block a rise in tuition charges from \$3,200 a year to \$5,000. The students argue that the increase of 56 per cent constitutes a breach of contract. The university catalogue states that the annual increase in tuition charges is estimated at \$200 and that "every effort will be made to keep tuition increases within these limits" though "an adjustment based on future economic data" may be necessary.

It is expected that a central issue in the case will be whether or not the catalogue may be taken as a written contract and, if so, what is required of the university by the contract.

George Washington University is a private institution but, unlike other private institutions that in recent years have received more and more state aid, GWU is stateless. GWU's home, the District of Columbia, is a "federal area" co-extended with the nation's capital and until recently governed directly by Congress.

In 1970 Congress enacted the District of Columbia Medical District

Manpower Act—supposedly making GWU eligible for \$5,000 a year per student support from federal sources.

GWU, however, never received the full amount, which was in any case about \$1,000 below the national average for assistance by the states to private medical schools. Some states pay a good deal more—Texas, for instance, provides more than \$17,000 per student to its private medical school.

In any case, all aid will terminate next June, when the District of Columbia is granted "home rule" by Congress. The district government, in the midst of financial crisis, has already told GWU that it will not be able to help. Without a substantial endowment to fall back on, GWU has already varied its fees by next year may reach as high as \$12,500 a year.

Georgetown University, also in Washington, DC, is experiencing almost identical difficulties. Its catalogue, however, was far less specific; and so its medical students, after investigating the matter, concluded that they did not have grounds to sue.

## More blacks go to college

The percentage of black youths going to college has continued to increase during the 1970s, while the percentage of college-bound whites has declined, the Census Bureau reports.

The percentage of 18-to-24-year-old blacks in college increased from 15 per cent in 1970 to 18 per cent in 1974, the bureau says. During the same period, the percentage of whites in college dropped from 27 per cent to 25 per cent.

The college-enrolment rate increased sharply for black males in the 18-to-24 age group from 16 per cent in 1970 to 20 per cent in 1974.

The proportion of black students who had finished at least four years of college remained far smaller than the proportion of college-educated whites. Among persons 25 to 34 years old in 1974, about 8 per cent of the blacks had finished at least four years of college. That is much lower than the 21 per cent reported for whites of the same age, but it represents a substantial increase for the blacks—up from 6 per cent in 1970 and 4 per cent in 1960.

The Census Bureau says it found black students more likely than white students to be enrolled in vocational schools and less likely to be enrolled in universities. At four-year colleges, however, the enrolment rates of whites and blacks were about the same.

Chronicle of Higher Education



## The urgent questions that go unanswered

Three teachers from the Polytechnic of North London have published one of the first serious accounts of events there during the past four years, with the intention of drawing the academic community to consider the political forces among students and staff and the measures needed to combat them.

The book has a lurid title, its prose is colourful and its tone is indignantly pious, all of which help to make it a most valuable analysis of a fledgling institution of higher education but less so.

A dispassionate sociological account of the short life of this polytechnic could have provided the sort of generality the authors apparently aimed at and moreover provided a genuinely academic analysis.

The authors who pin so much on guaranteeing academic communication through objective knowledge have really only fired another shot in a rather sordid struggle which might be learned from the PNL experience—lessons as much about the flexibility and inner strength of institutions as their fragility and danger from rampaging students.

The history of this polytechnic is confused and the writers who provided either a detailed history or full explanation of events there would be doing a service. The authors, also still to events that have obviously caused deep emotions, are silent where they should be loud and calm. Diagnosing the danger of subversion from within should not be a pretext for intellectual sloppiness.

Most importantly, they leave some important gaps in the explanations offered. For example, the characters of the student leaders need consideration, as do, as previously at the London School of Economics. The devastating personal ascendancy of a man like Mr. Terry Povey demands explanation, for he is not just to be consigned to some demagogic label. If the authors were concerned about lessons for the rest of higher education, they should have demonstrated their own maxim: know your enemy.

To understand events at PNL, the specific qualities of polytechnic education are called into account. The authors of *The Rise of Rexor* are committed to what they call "the academy," which they define as the prototypical higher education institution but which is basically an idealised university. They do not ask, as a result, if PNL had had more of the specific qualities of polytechnic education—on a sandwich basis, or diplomas—the student body would have been as quiet as elsewhere.

The authors' sense of history is frustrated. PNL has suffered from being the analogue of two former further education colleges, one of which seemed to have successfully high levels of student representation. Yet why should that have been on, and why should PNL have been the first of the new polytechnics to suffer from the disruptive students who have not been in London Polytechnic, the Polytechnic of Central London or any of the other London colleges?

The questions that demand a scholarly answer are legion. Why should the student body remain apathetic to the role of the ruling minority for so long? Are there special pressures on an urban polytechnic? Were there any special pressures on an urban polytechnic? Were there any special pressures on an urban polytechnic?

In other words, how seriously was the coal life of the institution affected? To characterise the economy of their liberalism as a hybrid, headed monster, including the Radical Science Journal, Professor Steven King, the Open University, Mr. Anthony Arlidge, and the Association of Teachers in Higher Education, is a misnomer.

started from within by a group of students intent on disruption as part of their "revolutionary" strategy and often, it seemed, for disruption's sake. Elsewhere, a small group of enthusiastically active students have been able to interrupt the administration of an institution and commit abuses both of common decency and the special consensus on which higher education inevitably rests. Yet the importance of such elements may be exaggerated, and the authors of this book, like some academics in Essex University last year and London University teachers during the London School of Economics events, do just this.

What they do not show is how far the life of PNL was actually affected by student violence. This is a serious gap, since it ignores the pluralism of institutions like universities and polytechnics.

Tonching on research can go on in one building while student unions plot and viopence in another. Examinations and assessment and degrees and diploma-getting went on at PNL through the years and what is more the Council for National Academic Awards recorded a qualitative improvement in academic standards at the polytechnic.

Extreme student behaviour should never be condoned, nor should it be limited to some kind of symbol of the quality of an institution's continuing work and achievement.

In fact the authors of this book are less clear than Lord Aneuryn when he reported on Essex University last year about who actually did the troublemaking. They identify the various student union presidents, but do not examine the numbers supporting them.

Into a confused picture the authors drop a series of charges against the adult intellectual fraternity. They identify a number of Sociological Association and the Inner London Education Authority—as "Trojan horses", entering the gates of reason by stealth. They lack the courage that their publishers—Dr Rhodes Boyson, MP, and Mr. McWhirter—would undoubtedly have in actually naming a conspiracy, if one existed, by adults to aid and abet the students' disruption.

Such a charge would be a dangerous one for them to make. For the CNA and the BSA, to take two of their bodies, are and by large made up of university academics, yet it is to the university that the authors of this book are constantly looking for their models of academic probity and good conduct.

Here again, the opportunity of unravelling a complicated story has been lost. Instead of looking closely at the power of a court of government, the issues are written down into personal battles. Instead of a detailed study of the appropriate style of leadership for a new polytechnic, the authors arrive to avoid mentioning Mr. Terry Povey, the PNL director, wherever possible.

The authors of this book suffer from a double longheadedness. They see the polytechnic as a mirror of society and student violence within the close confines of the polytechnic, and at the same time, they see society within the polytechnic, and at the same time, they see society within the polytechnic, and at the same time, they see society within the polytechnic.

## LETTERS TO THE EDITOR

### Academic socialists

From Mr Andrew McCulloch  
Sir—As one of the two founder members of the Association of Scientific, Managerial and Technical Staffs academic group at Essex University and until September 1, 1975, branch secretary of Colchester ASTMS, I can only assume that I must be one of the "deluded, ideological academics" Ivor Crews has dubbed the "new academic socialists" (THE August 12).

Crews's thesis is that we tend to believe: (a) all notions by trade unions are socialist; (b) all strikes are welcome and lead to the end of capitalism; and (c) all employees are (really) part of the working class.

It was hopefully to combat such stupidity and ignorance that Brother Crews joined ASTMS in July, 1975. Fortunately the battle is won for I know of no one who would wholeheartedly subscribe to any of those beliefs, and that includes Clive Jenkins. And Jenkins would almost certainly be superior to the errors made by Crews in his uncertainly flourish of Marxist rancour.

We do not have survey data but there is the concrete record of the hunt to rebut Crews's contentions. The Cnhreter branch, and particularly the academic group, has over the past few years consistently fought for social objects.

Admittedly, we did support the Association of University Teachers in their bid for higher pay, but with severe reservations and under the slogan "A unified campaign for a unified structure". Far from seeing every action as a trade union as socialism, we have supported other unions, including the actions of our own.

We are not strike mad, but we have involved ourselves in numerous struggles for better nursery facilities, equal pay and a host of other progressive issues both within and outside the university. It is significant that perhaps our greatest victory, with the NUS, was the establishment of a rational, university point on the lecture fee, the bottom payment of graduate scale for Essex, which, contrary to Trevor Jones' article in the same issue, did involve substantial rise for very many.

There is, rightly, a continuing debate over the way to align the middle and working classes, and bow a middle class-based unionism. Nevertheless, we are not deluded, nor radical chic. We are serious and we used the active help of

people like Ivor Crews within this branch—not their entirely negative criticism within the pages of THE TIMES. Yours faithfully, ANDREW McCULLOCH, Department of sociology, Essex University.

From Mr A. J. Glendon  
Sir—Ivor Crews's protestations reminded me of psychological experiments where aggressively conditioned children play with a wobbly doll while their behaviour is filmed. Crews blows up his own wobbly doll and then like an exasperated child proceeds to knock it this way and that while the reader is treated to snapshots of the doll's progress at regular intervals.

After his superlative opening paragraph outlining supposed political leanings of academics for which he cites no evidence (it does exist, but not to support his assertion), he continues with some snip comments about imaginary "agoraphobia" and "bogyman".

Thus, for example, we find, "some academics call themselves socialists", are "deluded", or "follow the current fashion of equating socialism with whatever any trade union does or wants", and so on—any volunteers for supporting any of these contentious views in places to distinguish his own views from the looseness of the language employed.

Since when did clause four "sanctify anything"? The difference between "old" and "new" socialists in academia is given in terms of their supposed views on trade unionism as a "progressive social force"—seriously? Since when have academics not been subordinate to authority?

As for the matter of tenure, many do not have security of tenure, and are appointed on salaries which are an insult to their qualifications (if he doesn't know, then I do). There are other similar points which could be made, but his wobbly doll's head is an imaginary 50 per cent pay claim by academics which Liberals and Conservatives alone can complain about not getting. Elitism it seems is all right in itself, but only professed elitism.

Yours faithfully, A. J. GLENDON, Nadin Road, Sutton Coldfield.

### Student grants

From Mr K. L. Stretch  
Sir—Might one rummunge on the odd selectivity of Saunders and Levin in purporting to investigate the justification for the parental contribution system without any mention of the majority recommendation of the Latey Committee (Cmd 3342, 1967) that the age of majority should be reduced to 18, and from that age young people should be able to claim completely independent of parental authority? (THE August 12).

The country having made this decision, it manifestly has no more justification whatsoever for demanding, or even expecting, any parental contribution; the relationship having been abolished for all legal purposes, the very terminology is an example of the double standard which bedevils our efforts to solve problems honestly and intelligently.

And if it were abolished, it would be equally financially to apply to university; to those no educational justification for retention either. The only "sound grounds" for its continued existence lie in the doctrine of class warfare, that young adults spring from families with more than average incomes should be penalised. The statistics adduced show how successfully this is being done.

No doubt Saunders and Levin are clearly believers in the desirability of class warfare, and would prefer the financial burden to fall on the parents, leaving only psychological pressure on the students; but in the true justification be explicit instead of obscured by the question of the most relevant factors.

Yours faithfully, K. L. STRETCH, Ashby-de-la-Zouch, Leicestershire.

### Expedition or race?

From Mr P. R. Bridger  
Sir—Wise fools abound in universities; a pity that their latest folly should be that expressed so accurately in your editorial: "the motive to the being of man, no less universal through mankind, than the craving for food and drink."

And do you suppose that such a desire means nothing? The very definition of the word, says Aristotle again, is that which all desire. Whatever is pleasant in good, unless it can be shown that it is long run it is harmful, or, in other words, not pleasant but unpleasant.

Mr Herbert Spencer himself on another subject speaks thus: "So profound an ignorance is there of the laws of life that men do not even know that their sensations are their natural guides, and (what not reared by long continued disobedience) their trustworthiness guides." The desire of knowledge does not need, nor could it possibly possess, any higher or more authentic sanction than its happiness which attends its gratification.

Perhaps it will be objected that we see, every day of our lives, plenty of people who do not desire to know; people, as Plato agreeably put it, who wallow in ignorance with the complacency of a brutal hog. We do, and here is the lesson. If the craving of hunger and thirst are denied satisfaction, if a man is kept from food and drink, the man starves to death, and there is an end of him.

The final lota of dedicated herbage fractures the (total) truth of the large rumour quadruped indigenous to and regions. Yours faithfully, WALTER ROBERTS, Philbeech Gardens, London SW5.

Accommodation service  
From Shirley Meredith  
Sir—Cutting off the tail of the dog from the body is a dangerous business. The fact that the accommodation crisis in London is not being solved by the Government, but by the private sector, is a fact which is being ignored by the Government. The fact that the accommodation crisis in London is not being solved by the Government, but by the private sector, is a fact which is being ignored by the Government.

## Hidden delights that await everyman in pursuit of knowledge

'Knowledge resembles virtue in this, and differs in this from other possessions, that it is not merely a means of procuring good, but is good in itself simply; it is not a coin which we pay down to purchase happiness, but has happiness indissolubly bound up with it'

A. E. Housman

"Perhaps the best defence of scholarship ever written" is how Dr Alec Merrison in a recent THES described A. E. Housman's introductory lecture as professor of Latin at University College London. The lecture was given at the beginning of the autumn term of 1932, and published in 1933; the following section is reproduced by permission of Cambridge University Press.

People are too prone to torment themselves with devised far-fetched reasons for the acquisition of knowledge; they cannot be content with the simple truth asserted by Aristotle: all men possess by nature a craving for knowledge.

This is no rare endowment scattered sparingly from heaven that falls on a few heads and passes others by; curiosity, the desire to know things as they are, is a craving no less native to the being of man, no less universal through mankind, than the craving for food and drink.

And do you suppose that such a desire means nothing? The very definition of the word, says Aristotle again, is that which all desire. Whatever is pleasant in good, unless it can be shown that it is long run it is harmful, or, in other words, not pleasant but unpleasant.

Mr Herbert Spencer himself on another subject speaks thus: "So profound an ignorance is there of the laws of life that men do not even know that their sensations are their natural guides, and (what not reared by long continued disobedience) their trustworthiness guides." The desire of knowledge does not need, nor could it possibly possess, any higher or more authentic sanction than its happiness which attends its gratification.

Perhaps it will be objected that we see, every day of our lives, plenty of people who do not desire to know; people, as Plato agreeably put it, who wallow in ignorance with the complacency of a brutal hog. We do, and here is the lesson. If the craving of hunger and thirst are denied satisfaction, if a man is kept from food and drink, the man starves to death, and there is an end of him.

The final lota of dedicated herbage fractures the (total) truth of the large rumour quadruped indigenous to and regions. Yours faithfully, WALTER ROBERTS, Philbeech Gardens, London SW5.

Accommodation service  
From Shirley Meredith  
Sir—Cutting off the tail of the dog from the body is a dangerous business. The fact that the accommodation crisis in London is not being solved by the Government, but by the private sector, is a fact which is being ignored by the Government. The fact that the accommodation crisis in London is not being solved by the Government, but by the private sector, is a fact which is being ignored by the Government.

That capability and godlike reason To fast in us unused.

The faculty of learning is ours that we may find in its exercise that delight which arises from the unimpeded activity of any energy in the groove nature meant it to run in.

Let a man acquire knowledge not for this or that external and incidental good which may chance to result from it, but for itself; nor because it is useful or ornamental, but because it is knowledge, and therefore good for man to acquire.

"Brother," says Ulysses in Dante, when with his old and tardy companion he had left Seville on the right hand and Ceuta on the left, and was come to that narrow pass where Hercules assigned his landmarks to hinder man from venturing further:

"Brothers, who through a hundred thousand dangers have reached the West, deny not to this brief vigil of your senses that remains, experience of the unpeopled world before the sunset. Consider of what seed ye are sprung; ye were not formed to live like brutes, but to follow virtue and knowledge."

For knowledge resembles virtue in this, and differs in this from other possessions, that it is not merely a means of procuring good, but is good in itself simply; it is not a coin which we pay down to purchase happiness, but has happiness indissolubly bound up with it.

Fortitude and continence and honesty are not commended to us on the ground that they conduce, as on the whole they do conduce, to material success, nor yet on the ground that they will be rewarded hereafter. Those whose office it is to exert mankind to virtue are ashamed to degrade the cause they plead by proffering such lures as these.

And let us, too, disdain to take lower ground in commending knowledge: let us insist that the pursuit of knowledge, like the pursuit of righteousness, is a part of man's duty to himself; and remember the Scripture where it is written: "He that refuseth instruction despiseth his own soul."

I will not say, as Professor Tyndall has somewhere said, that all happiness belongs to him who can say from his heart, "I cover truth". Entire happiness is not attainable either by this or by any other method.

Yet, it may be urged on the contrary that the pursuit of truth in some directions is a pursuit to happiness, because it compels us to take leave of delusions which were pleasant while they lasted.

It may be urged that the light shed on the origin and destiny of man by the pursuit of truth in some directions is not altogether a cheerful light.

It may be urged that man stands today in the position of one who has been rescued from his cradle as the child of a noble race and the heir to great possessions, and who finds at his coming of age that he has been deceived alike as to his origin and his possessions. That he neither springs of the high lineage he fancied, nor will inherit the vast estate he looked for, but must put

off his towering pride, and contract his boundless hopes, and begin the world anew from a lower level: and this, it may be urged, comes of pursuing knowledge.

But even conceding this, I suppose the answer to be that knowledge, and especially disagreeable knowledge, cannot by any art be totally excluded even from those who do not seek it. Wisdom, said Aeschylus long ago, comes to men whether they will or no.

The house of delusions is cheap to build, but draughty to live in, and ready at any time to crumble or of arising against corners in the daylight when in the dark.

It is and it must in the long run be better for a man to see things as they are than to be ignorant of them; just as there is less fear in stumbling or of arising against corners in the daylight than in the dark.

Nor again will I pretend that, as Bacon asserts, "the pleasure and delight of the pursuit of knowledge far surpasseth all other pleasures." This is too much the language of a salesman crying his own wares.

The pleasures of the intellect are notoriously less vivid than either the pleasures of sense or the pleasures of the affections; and therefore, especially in the season of youth, the pursuit of knowledge is likely enough to be neglected and lightly esteemed in comparison with other pursuits offering much stronger immediate attractions.

But the pleasure of learning and knowing, though not the keenest, is yet the least perishable of pleasures; the least subject to external things, and the play of chance, and the wear of time.

And as a provision for the material wants of his old age, so too he needs to lay up against the end of his days provision for the intellect. As the years go by, cooperative values are found to alter: time, says Sophocles, takes many things which once were pleasure and brings them nearer to pain.

In the day when the strong man shall bow himself, and desire shall fail, it will be a matter of yet more concern than now, whether one can say "my mind to me a kingdom is"; and whether the windows of the soul look out upon a broad and delightful landscape, or face nothing but a brick wall.

Well then, once we have recognized that knowledge in itself is good for man, we shall need to invent no pretexts for studying, this subject or that; we shall import no extraneous considerations of use or ornament to justify us in learning one thing rather than another.

A certain department of knowledge specially attracts a man; let him study that, and study it because it attracts him; and let him not fabricate excuses for that which requires no excuse, but rest assured that the reason why it must attract him is that it is better for him.

The majority of mankind, as is only natural, will be most attracted by those sciences which most nearly concern human life; those sciences which, in Bacon's phrase, are drenched in flesh and blood. To the more elegant language of the *Daily Telegraph*, palpitate with actuality.

The men who are attracted to the drier and the less palpitating sciences, say logic or pure mathematics or textual criticism, are likely to be fewer in number; but they are not to suppose that the comparative unpopularity of such learning renders it any the less worthy of pursuit.

They may if they like console themselves with Bacon's observation that "this same *lumen siccum* doth parch and offend most men's weter and soft natures," and rest if it pleases them, that their natures are less soft and watery than other men's.

But be that as it may, we do all dwell together in unity without crying up our own pursuits or deprecating the pursuits of others on factitious grounds. We are not like the Ottoman sultans of old time, who thought they could never enjoy a moment's security till they had murdered all their brothers.

There is no rivalry between the studies of arts, god laws and science but the rivalry of fellow-soldiers in striving which can most victoriously achieve the common end of all, to set back the frontier of darkness.

It is the glory of God, says Solomon, to conceal a thing: but the honour of kings is to search out a matter. Kings have long abdicated that province; and we students come into their inheritance; it is our honour to search out the things which God has concealed.

In Germany at Easter time they hide coloured eggs about the house and the garden that the children may amuse themselves in hunting after them and finding them.

It is to seek such game of hide-and-seek that we are invited by that power which planted in us the desire to find out what is concealed, and stood the universe with hidden things that we might delight ourselves in discovering them.

And the pleasure of discovery differs from other pleasures in this, that it is diminished by no fear of satiety on the one hand or frustration on the other.

Other desires perish in their gratification, but the desire of knowledge never: the eye is not satisfied with seeing nor the ear filled with hearing.

Other desires become the occasion of pain through dearth of the material to gratify them, but not the desire of knowledge: the sum of things to be known is inexhaustible, and however long we read we shall never come to the end of our story-book.

So long as the mind of man is what it is, it will continue to exult in advancing on the unknown throughout the infinite field of the universe; and the tree of knowledge will remain for ever, as it was in the beginning, a tree to be desired to make one wick.



Over: Saint Jerome



## NOTICE BOARD

## Chairs

Dr H. G. Huchard, reader in neurochemistry, University of London, has been appointed professor of biochemistry, University of Bath.

Dr G. P. G. Butler, senior lecturer in German, University College London, has been appointed professor of modern languages, University of Bath.

Dr R. Harris, reader in materials science, University of Sussex, has been appointed professor of materials science, University of Bath.

Mr Philip Kennedy, senior lecturer in anatomy, University of Edinburgh, has been appointed to the new chair of anatomy at Glasgow University.

## Appointments

**Universities**

Bath: Director of South-West University Computer Centre: J. R. Brooks.

Oxford: James P. R. Lyle, reader in biology, 1974-75: H. M. Nisani.

**Polytechnics**

North Staffordshire: Head of the international relations and politics department: A. E. Thorndike.

## Course news

The Institution of Metallurgists will be holding an autumn review course on non-ferrous metallurgy in metallurgy from October 31 to November 2 at the Grand Hotel, Bristol. It will discuss recent successes and suggest ways in which technological innovation should be organized in the future. Further information from the Institution, Northway House, High Road, Whitehouse, London.

A one-day course on field lubricants sponsored by the National Centre of Technology will be held at the National Centre of Technology on November 25, 1975. Organized by the Scientific and

Dr R. T. Parfitt, research and development manager, Nicholas Research Institute, has been appointed professor of physical and chemical chemistry, University of Bath.

Dr G. A. Saunders, senior lecturer in applied physics, University of Durham, has been appointed professor of physics, University of Bath.

Dr R. Sibson, lecturer in statistics, University of Cambridge, has been appointed professor of statistics, University of Bath.

Mr C. R. Tomkins, senior lecturer in accountancy and finance, University of Strathclyde, has been appointed professor of business finance, University of Bath.

## General

## Science Research Council

Two new members have been appointed to the governing body: Professor J. L. Jinks (department of genetics, University of Birmingham); Professor J. C. Polkinghorne (mathematical physics, University of Cambridge).

**Anglian Regional Management Centre**

Visiting fellow: Professor C. W. Ross (education). Senior lecturer: Mrs E. Godfrey (management).

Technical News Service. It aims to familiarize engineers and designers with the properties of oils, greases and the effects of additives. Fee: £26.00. Details from: The World Trade Institute, Atomic Energy Authority, Risley, Warrington, WA3 5AT.

The World Trade Institute and the Institute of Export have announced their forthcoming courses in export documentation, to be held at the World Trade Institute's headquarters. Dates of the courses are: October 23, 1975; December 11, 1975; January 15, 1976; March 4, 1976; April 23, 1976 and June 17, 1976. Fee: £250.00 plus VAT. Further details from: Miss Angela Beckett, Conference Executive, World Trade Institute, World Trade Centre, St Katharine by the Tower, London E1.

## Fellowships

The Royal Society. Mr and Mrs John Jaffe Donnan Research Fellowships: Dr G. S. Redford (Ray Faraday Research Laboratory, the Royal Institution); Dr J. F. W. Watt (Mullard Radio Astronomy Observatory, Cambridge University).

The Horace Le Marquis and Dudley Rigg Research Fellowships: Dr I. W. Chubb (St John's College, Oxford); Dr J. H. Cooke, £18,655 from the MRC for a study of the physiological and pharmacological properties of bulbohypophyseal excitatory pathways.

The Rosenheim Research Fellowship: Dr D. E. Hanks (department of botany, Cambridge University); Dr J. M. Bennett, £12,658 from the Agricultural Research Council for a study of biological and integrated control of arthropods; Dr J. Cohen, £7,143 from the World Health Organisation for a study of the characterization of human anti-sperm antibodies.

The Radcliffe Trust Research Award: Dr D. K. Atkinson (department of physics, University College London); Dr J. M. Bennett, £12,658 from the Agricultural Research Council for a study of biological and integrated control of arthropods; Dr J. Cohen, £7,143 from the World Health Organisation for a study of the characterization of human anti-sperm antibodies.

Warren Research Fellowships: Dr D. V. Edwards (department of metallurgy and materials science, Cambridge University); Dr A. E. Vardy (department of civil engineering, Leeds University); Dr J. M. Bennett, £12,658 from the Agricultural Research Council for a study of biological and integrated control of arthropods; Dr J. Cohen, £7,143 from the World Health Organisation for a study of the characterization of human anti-sperm antibodies.

## Forthcoming events

The Telford Centre for the Future of Man is holding a one-day conference on "Self and society: conflict or operation?" on October 18, 1975, at St Pancras Assembly Rooms, Euston Road, London NW1. It will consider aspects of social and human behaviour, psychological views of the individual's experience with society, and religious perspectives on individuality. Tickets and programmes from the Centre, St Mark's Chambers, Keanington Park Road, London SE11 4PW.

## Grants

The body's carbohydrate reserves, and how continued analysis of several types of storage diseases which involve defects in the carbohydrate storage mechanisms; Professor P. E. Garland, £1,094 from the Nuffield Foundation for research on learning materials for biotechnology clinical medicine.

Chemistry—Dr G. Hunter, £9,000 from the SRC in connection with his experimental studies of metal chelate complexes of ligands containing heavy donor atoms.

Histology—Dr P. J. Steward, £1,596 from the Nuffield Foundation for research on the mechanisms of biological science for the better part of the past century. There may be some justification for this in that there are regularities in human social behaviour which may be almost exclusively dependent upon cultural processes.

Mathematics—Professor A. R. Mitchell and Dr R. Fletcher, £5,800 from the SRC for research into an analysis of convergence of Lagrange multiplier penalty functions.

Physiology—Professor O. H. Pearson, £2,710 from the MRC for research into the mechanism of hormone and neurotransmitter action on gland cells; Dr D. G. Nicholls, £1,596 from the SRC for research into the role of mitochondrial ion transport in the regulation of cytoplasmic calcium levels in the brain.

Psychology—Dr N. J. Wade, £3,111 from the MRC in connection with a search into perceptual correlates of dominance; Mr A. L. Wilkes, £3,111 from the SRC for research into the role of the interaction of genetic, learning and recall.

Edinburgh: Forestry and natural resources—£16,490 from the NERC to support research on the state of forest resources in Scotland, under the direction of Dr D. C. Malcolm.

Geophysics—£11,285 from NERC for research on magnetic dating, under the direction of Dr M. J. Coleman. Dr M. Coleman, £11,285 from NERC in support of research on the geochronology of suspended particulate matter in the North Atlantic Ocean; £10,234 in support of research on the geochronology of river water with seawater; £1,546 for research on the geochronology of suspended particulate matter in the North Atlantic Ocean.

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## It's not what you do, but the way that you do it

Biosocial Anthropology  
edited by Robin Fox  
Methuen Press, £6.50  
ISBN 0 450 10002 7

It is unfortunate that the British school of social anthropology has remained relatively impervious to the concepts of biological science for the better part of the past century. There may be some justification for this in that there are regularities in human social behaviour which may be almost exclusively dependent upon cultural processes. A social anthropologist might therefore claim that human society may be studied without any reference to the underlying biological processes. However, there are historical factors which are at least partly responsible for the virtual divorce of British social anthropology from biology. Herbert Spencer applied a concept analogous to that of natural selection to the development of human societies and arrived at just like any natural selection.

In recent years, there has been a re-evaluation of the role of biology in human evolution. The justifiable rejection of Spencer's views has led to the unjustifiable rejection of virtually all biological concepts, even where correctly applied.

Darwin's thesis was really very simple. In a natural population which is producing more individuals than can be carried by the environment, mortality will keep the population in check. If the individuals in a population differ in their characteristics, and if those differences are inherited, natural selection will occur automatically, favouring the survival of those best suited to the environment. This only applies when true genetic transmission is involved and Spencer's analogy for human society went astray in that it assumed that cultural transmission (though this was consistent with Spencer's belief in the inheritance of acquired characteristics). How-



Social organization among chimpanzees: two infants play in the middle of a protective group, while a juvenile grooms an adult.

ever, the fact remains that if there is any inherited basis for human social behaviour it must be incorrect. Hence, social anthropologists are equally guilty of "reductionism" if they consider man's cultural aspects as completely independent of biological processes.

Given this background, it is particularly encouraging to see the publication of *Biosocial Anthropology*, which contains six serious and stimulating essays on biological aspects of human social behaviour. The approach is not exclusively anthropological, since there are contributions from two sociologists (Fox and Tiger) and a geneticist (Hamilton) in addition to the three papers from biologists (Bischoff, Chance and Blumstein). For this reason, the editor (Robin Fox) preferred the title *Biosocial Anthropology* to that of *Human Biology*. Yet the biological emphasis is clear.

A large number of subjects is covered in only 155 pages. Fox considers the relationship between patterns of social organization in non-human primates and human

kinship systems; this dovetails quite well with Bischoff's contribution on the biological basis of incest avoidance. Blumstein is perceptive and wide-ranging in "Ethology, Anthropology and Childhood", while Chance analyses possible relationships between avian social structure and social cohesion in non-human primates and men. Tiger discusses various "cultural" factors which may exert influences on human social behaviour and Hamilton returns off the book with a brief summary of some theoretical genetic principles and their potential application to features of human social behaviour.

The breadth of coverage is possible because most of the papers are essentially theoretical, with few practical examples. This is something of a drawback since what is really required to convince the sceptic is firm practical demonstration that a detailed scientific understanding of the foundation of human social behaviour is furnished by the application of biological principles.

There is obviously a fertile field for further research, but it seems unlikely that the opposition to such research among social anthropologists will be significantly modified by the publication of *Biosocial Anthropology*, which contains six serious and stimulating essays on biological aspects of human social behaviour. The approach is not exclusively anthropological, since there are contributions from two sociologists (Fox and Tiger) and a geneticist (Hamilton) in addition to the three papers from biologists (Bischoff, Chance and Blumstein). For this reason, the editor (Robin Fox) preferred the title *Biosocial Anthropology* to that of *Human Biology*. Yet the biological emphasis is clear.

Perhaps the most encouraging thing to emerge from this book is not so much the possibility that social anthropology might at last develop to accommodate human biology, but that certain ideas emerge which should be applied in strictly biological studies. It is clear from Fox's study that future studies on group-living primates should pay more attention to kin-

R. D. Martin

## Open University programmes September 27 to October 3

## Saturday September 27

10.00-11.00: Science foundation course: Physics in single units and in solids (1000).  
11.00-12.00: The Victorian and Edwardian eras (1000).  
12.00-1.00: Mathematics foundation course: An introduction to number theory (1000).  
1.00-2.00: Mathematics foundation course: An introduction to number theory (1000).  
2.00-3.00: Mathematics foundation course: An introduction to number theory (1000).  
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## BOOKS

## Works of scholarship

The Wife of Bath's Prologue and Tale and The Clerk's Prologue and Tale, edited by Gloria Sigmund. University of London Press, £1.95. ISBN 0 340 14770 9.

The Friar, Summoner's and Pardoner's Tales, edited by N. R. Havoley. University of London Press, £1.85. ISBN 0 340 14771 9.

Chaucer: Canterbury Tales, edited by A. C. Crawley. Dent, £2.50 and £1.25. ISBN 0 460 10307 5 and 10307 0.

Piers Plowman: the B Version, edited by George Kane and E. T. Donaldson. Athlone Press, £20.00. ISBN 0 485 13502 7.

Poems on Affairs of State: Augustan Satirical Verse, Vol VII 1704-14, edited by F. H. Ellis. Yale University Press, £17.50. ISBN 0 300 01772 3.

Silver Poets of the Seventeenth Century, edited by G. A. E. Parfitt. Dent, £2.95. ISBN 0 460 10369 5.

English Poetry 1700-1780, edited by D. W. Linnell. Dent, £3.25. ISBN 0 460 10700 3.

Browning: Men and Women and other Poems, edited by I. W. Harper. Dent, £3.00 and £1.40. ISBN 0 460 10427 6 and 11427 1.

A Choice of Cowper's Verse, edited by Norman Nicholson. Faber, £1.95 and 85p. ISBN 0 571 10706 0 and 10633 1.

The "London and Madelval and Renaissance Series" has published two more predestinate "set texts", and I think them worthily and but penitential in effect. Miss Sigmund's edition is detailed and scholarly, but I doubt that any reader needs to be told that "right enough" and referred to the explanatory commentary in the bargain. To be told that the "Wife of Bath" states her point of view by means of generalized assertions, strengthened by external references, draws upon about fifty authorities... but she has, after all, travelled very widely. It is heavy as lead. Mr. Havoley's volume is too much annotated also, and his fifty pages of introductory matter make another thicket for the student to hack his way through before he gets to a major poet. I am sorry to find fault with industry and learning, but the whole conception behind such a series for beginners and students is more a burden than a blessing. I would sooner put A. C. Crawley's revised edition of the *Canterbury Tales*, published earlier in this year, into the student's hands and let him occasionally consult the edition of the text, but read literature not endless explanation of it.

Kane and Donaldson's edition of the B text of *Langland* follows, of

course, that of the A text which they published in 1960, and if anything is an even more remarkable achievement of textual scholarship: giving a new consistency and representativeness to this great text, possibly the most demanding in our literature from the textual critic's point of view. The immense series of Poems on Affairs of State now goes into its seventh volume. The enterprise is currently one of the most rewarding in the whole field of literary studies. Nowhere else can we follow the immediate emergence of literature from topicality in such evocative but lively detail; and the new volume is enlivened by tales like those of Prior, Swift and Defoe (who perhaps comes out best of all), as well as by the anonymous authors of the *Epigram* on Mrs Deborah Churchill being hanged, and *Mine Arse in a Bonnet*. A whole inter-disciplinary degree course could be built around this unique publication.

Everyman's Library now includes three further volumes of poetry. I wish G. A. E. Parfitt's seventeenth-century one had found room for Truherne, but it is a thoroughly useful collection making some important poems (Craik's "Music's Hill" and Dehonom's "Cooper's Hill" for example) generally available, and with a sensible introduction and well-informed notes. Why neither this volume nor the next is printed with the simple elegance of old Everyman volumes like, for example, the beautiful 1931 *Minor Poets of the 17th Century*, I do not know. David Lindsay's volume includes many pleasant and enjoyable poems, as well as ones useful for literary history. Points of view ("Crangan Hill", "A Night-piece on Death", Gay's delightful "Trivium", book IV of *The Pleasures of the Imagination*). The introduction is an extremely effective literary-historical essay, and the notes are admirable. Then, Stuart's "Song to David" roars above the rest and restores the poetic perspective.

The decision to include poems only of a certain length means that some important areas (eighteenth-century hymns, for example) are barely represented, and I suppose more prominence ought to have been given to the fact that certain major poets (Gray, Collins, Cowper and of course Pope) were omitted entirely. Norman Nicholson's *Choice of Cowper's Verse* is rather slight to fill part of that gap, but the directness and sincerity of the introduction, and its beautiful typography, make this a precious little book. I. W. Harper's *Browning* volume is an Everyman that lies comparatively well on the page, and the introduction and notes are well-informed, if a trifle thin on Browning as a master of language and only psychology.

In an earlier review, I said that J. D. Jones's *Everyman's Library* volume had less of the little in it than is the case, and I am sorry for that.

John Holloway

## Interrelated Victorian novelists

Thackeray's Novels: a Fiction That is True, by Jack P. Rowlin. University of California Press, £5.50. ISBN 0 520 02552 5.

The Foreign Vision of Charlotte Brontë, by Enid L. Dudgeon. Macmillan, £7.50. ISBN 0 333 18082 8.

Elizabeth Gaskell: The Novel of Social Crisis, by Coral Lansbury. Elek, £4.25. ISBN 0 236 31147 6.

When, as Mrs Gaskell records, Charlotte Brontë saw a portrait of Thackeray in London in 1853, she stood before it in silence before declaring "And there came up a Lion out of Junion." One should perhaps be grateful that Miss Brontë was not exposed to the variety of theorizing about Thackeray in which Jack P. Rowlin indulges, for her adulation might well have been tempered. Dr. Rowlin sees "difficulties" and "problems" everywhere in Thackeray's fiction and attempts to relieve his awkwardness by adducing a cou-sious theoretical background to the great experimenter: a realist aware of the essential problem of conveying reality in a fictional form. But Rowlin's approach is too narrow: the study falls to convey that Thackeray's challenging originality is part of a general experimentation by the novelists of the 1840s and 1850s. The assertion that writers and readers were tied by long-standing conventions of plot and

expectation is effectively without foundation. To inform us that the novel was the form in which a message was to be got to the people, just as the 60-second television commercial is today, both trivializes and misunderstands the real background to the form and the achievement of the early Victorian novelists.

Dr. Rowlin's discussion of "realism" is vague, or in the case of his treatment of *Esmond*, wrong-headed. His determination throughout to show what Thackeray is not disguises the avoidance of actually showing what Thackeray is.

Dr. Dudgeon's *The Foreign Vision of Charlotte Brontë* is less ambitious in its intentions. Charlotte Brontë went to Brussels (which Thackeray had observed as having "an absurd kind of English look") with fixed prejudices against the French and against Roman Catholics. Her experiences there enabled her to create a fictional city of Villiers and to study the sufferings and education of an English spinster in an oppressively foreign environment. Dr. Dudgeon closely follows the path first traced by Mrs Gaskell, and more recently and more revealingly, by Winifred Gérin. The two earlier writers saw Charlotte Brontë's Belgian experiences as part of an extended biography of a novelist: Dr. Dudgeon considers the English novelist from a Celtic viewpoint, tracing her interest in *la civilisation française* through the Anglian tales to the ramifications of the issue in the later novels. The thesis is simple, but unfortunately much of the development is limited. The book would have

benefited considerably from an organization of its material around themes. As it is it appears sporadic and frequently inconsequential.

Despite Coral Lansbury's complaint that *Cranford* has overshadowed the rest of Elizabeth Gaskell's work it is perhaps *The Life of Charlotte Brontë* which has proved her most consistently popular and successful book. Professor Lansbury sets out to place Mrs Gaskell among the great novelists of the nineteenth century, and blames *Cranford* with having marred her existing reputation. It is too easily said, and the present study does not do much to redress the balance. Mrs Gaskell emerges as little more than a social realist whose real contribution to literature is to make literature respectable to a bourgeoisie of its application—of catastrophe. Thackeray's book is subtitled *An outline of a general theory of novels*. This expresses clearly just how the catastrophe is important, although strictly no such general theory is given, but is only made apparent from the contents. We can see this from an example. Physicists are used to modify Boyle's law so as to flush up with van der Waals's equation. So particular model of the gas is set up, which is more complicated than the perfect gas. But could not different or further modifications have been made? How do we know just how much of reality we are capturing? Thackeray's theory gives a qualitative answer, and that is what is needed, since the qualitative one is already provided by experiments. It says that van der Waals's equation is an example of the cusp catastrophe and that this is the most general catastrophe open to a system with this number of degrees of freedom. So the model does capture reality in this sense—that any more complicated algebraic formula would not give essentially different behaviour. Mr. Such a more complex model would give, no doubt, different numerical results, which would agree worse or better with experiment. It could not throw up a new phenomenon which would need a new name like super-cooling. Such a new phenomenon could occur only in a model with more degrees of freedom.

Andrew Sanders



"Stoleo klesco" one of the many amusing drawings in "Heath Robinson Absurdities". The book was put together by Heath Robinson himself and was the only large-scale collection of his humorous work published during his lifetime. Published by Duckworth at £3.95.

## Cat-calls, hissings or loud applause?

Eye-witnesses of Shakespeare's First Hand: Accounts of Performances 1590-1890, by Gaudin Salgado. Sussex University Press, £6.00. ISBN 0 85621 035 8.

Dr. Salgado has put together a thoroughly interesting and entertaining anthology of eighteenth and nineteenth-century Shakespearean theatre-going. The first 65 pages, taking the record up to 1700, are a mistake, being made up of familiar allusion-book references, and it is hard to see why this material is included while the twentieth century is not treated at all. From 1700 on it is excellent, with well-chosen accounts of performances accompanied by a light and easy commentary from the editor.

Some of the best pieces are anonymous—The Times on Irving's Shylock, for example—but in general the book relies on the unfailing quality of the heavyweights: Hazlitt, Lamb, Shaw and James. Whether liked or disliked, Irving's performances bring out some excellent criticisms, especially those of Clement Scott on *Much Ado* and Edward Swilling on *Twelfth Night*. That marvellous lost world of early nineteenth-century theatre-going, whose audiences really were audiences, comes over very well. When Mrs Johnston, of disputed reputation, returned to Covent Garden in 1808 to play *Beatrice* in *Much Ado*, there was demonstration and counter demonstration. "The clapping on one part, however, and the crying off off off blended with hisses on the other, created such confusion that the beginning of the first act was wholly lost to the ear."

Each play of Shakespeare is treated separately, and the book is a

slight drawback in this method in that the clock keeps going round and after a few pages we return again to Planché's characterisation and Charles Kean's pageantry, and so on. The book is useful for a given play, for there are a great many valuable and unexpected critical perceptions in it. The student will not only gain very quickly some idea of the history of Shakespeare in the theatre, but will see how, in the theatre, and in the reading of the play, watching the performance rather than the text, the play comes to life. Dickens's review of *Macbeth* is an excellent example of how critical understanding grows even from the perspective of the audience.

Philip Edwards

## BOOKS

## Butterfly catastrophes

Differentiable Germs and Catastrophes, by T. Bröcker. Cambridge University Press, £4.00. ISBN 0 521 20681 2.

Structural Stability and Morphogenesis, by R. Thom. Addison Wesley, £12.40 and £7.45. ISBN 0 8053 9276 0 and 9277 7.

These two books made my holiday, in a year when the weather was too hot to do much but sit and read. Both centre on the new concept—such as we now see growing generally in the importance and variety of its application—of catastrophe. Thom's book is subtitled *An outline of a general theory of models*. This expresses clearly just how the catastrophe is important, although strictly no such general theory is given, but is only made apparent from the contents. We can see this from an example. Physicists are used to modify Boyle's law so as to flush up with van der Waals's equation. So particular model of the gas is set up, which is more complicated than the perfect gas. But could not different or further modifications have been made? How do we know just how much of reality we are capturing? Thom's theory gives a qualitative answer, and that is what is needed, since the qualitative one is already provided by experiments. It says that van der Waals's equation is an example of the cusp catastrophe and that this is the most general catastrophe open to a system with this number of degrees of freedom. So the model does capture reality in this sense—that any more complicated algebraic formula would not give essentially different behaviour. Mr. Such a more complex model would give, no doubt, different numerical results, which would agree worse or better with experiment. It could not throw up a new phenomenon which would need a new name like super-cooling. Such a new phenomenon could occur only in a model with more degrees of freedom.

Bröcker's book is in the London Mathematical Society lecture notes series, and describes a postgraduate course on the new local theory of differentiable mappings. (A germ is essentially just a mapping between two sets, considered locally, more precisely, an equivalence class of mappings, two mappings being in the same set if they coincide on an open set.) Such mappings possess critical points in the usual sense and one tool of the investigation, which is proved in chapter two, is Sard's theorem that the Lebesgue measure of the set of critical points of a differentiable mapping is zero (a result from which Bröcker's fixed point theorem follows as an easy application). Further more are the division theorem of Mather and the preparation theorem of Mather and Morse (chapter six). The first of these expresses a germ as a polynomial with respect to the first variable, whose coefficients are germs in the remainder; the second is rather technical, but is a further result in the same spirit. So the book steadily climbs the mountain of rocky abstraction, but just as the faint-hearted fear he will not get his second wind before the top, the vista changes to a lovely view of a fertile plateau of applications. This happens halfway through. Whitney's result about differentiable maps of the plane on to itself. The idea is very simple; the mapping is equivalent to the crumpling of a flexible sheet. What can be the situation in which a point finds itself? It may be regular, in which case, locally, it sees around it an identity map; or it may be on a fold, or it may be at the end of a fold. Whitney's result is that nothing more fearsome can happen; and we raise our eyebrows for the last two cases evidently refer to the fold catastrophe (the cusp (Riemann surface) of René Thom. The rest of the book is oriented towards exploiting this connexion by means of Mather's theory of unfolding of singularities, which enables us straightforwardly to deduce the seven elementary catastrophes (fold, cusp, swallowtail, butterfly and the three umbilics). These are well illustrated by beautifully drawn figures. The translation throughout is perfect.

C. W. Kilmister

## Rigorous abstractions

A First Course in Abstract Algebra, by R. J. Higgins. Van Nostrand Reinhold, £4.50 and £2.50. ISBN 0 442 30083 2 and 30084 0.

This slim volume contains a remarkably large amount of material. It covers the complete range of abstract algebra that might be considered for inclusion in a first year undergraduate course, and far more than most courses would attempt, in just 156 pages. The topics covered in detail include sets, functions, equivalence relations and partitions, "inductive" arguments, groups, properties of the integers, rings and fields and polynomials.

The material is covered clearly

and systematically, with careful attention to detail. In general the approach taken is very abstract and mathematically rigorous, but this is tempered by explanatory comments and many varied concrete examples. The close connections between the topics are used to build an elegant and logical theory, which an able student should find stimulating and enjoyable.

Unfortunately many of the students taking first-year courses in abstract algebra are not particularly able or well prepared for such a course, and the approach has various disadvantages for them. At the beginning of the course they meet both the many new concepts of abstract algebra and a completely new approach with its own notation which has to be learnt. Many students need a gentler approach than they will find here.

Susan McKay

## Principles of virology

Bacteriophages, by John Douglas. Chapman & Hall, £4.00 and £2.25. ISBN 0 412 12630 3 and 12640 0.

Librally illustrated with explanatory diagrams and photographs, this slim book is essentially an introductory account for undergraduates of the structure and function of bacteriophages. It is written by all who have an elementary knowledge of bacteriology, and is a valuable guide to the literature in the field. The book is a valuable guide to the literature in the field. The book is a valuable guide to the literature in the field.

"survival" and "death" including inactivation by disinfectants, irradiation and antibody. A selective and well-integrated survey of bacteriophage genetics includes the mapping of the T4 chromosome with Benzer's classical fine structure account of transduction, and a miscellany of recent highlights of molecular genetics such as the isolation of the *lac* operon and of genes of the *lac* repressor.

Applied aspects cover the adverse effects of bacteriophages in some industrial processes and their use in the medical microbiology laboratory, and in radiation dosimetry. A valuable guide to the literature is supplemented, in the appendices, by a short, well-selected list of books.

R. G. Postlethwaite

## A Check List of Recent Books

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Tony Manocchio is one of the leading practitioners of family therapy in Britain and Scandinavia and, with his colleagues, he has written a lively study of communication within families, revealing the universal problems common to all families. £4.95

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Draws on material from several disciplines to explore the contributions of social theory to historical insight. £6.50

The Foreman  
DAVID DUNKERLEY  
Provides a sociological framework to account for the peculiar strains, conflicts and ambiguities associated with the foreman's role. International Library of Sociology £5.95

\*Inspection copies available on request from Broadway House, Reading Road, Henley-on-Thames, Oxon RG9 1EN.

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# BOOKS

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## LETTERS TO THE EDITOR

## University efficiency

from Dr J. E. Dunworth

Sir,—May I reply to Mr. J. C. Brind's letter (THES, September 12) about the article by Dr Cook and myself (THES, August 22) on university efficiency.

Mr Brind chides us with replacing one set of norms with another. He misses the point that we are changing the stage at which control is exercised. Under the present system money is spent on the items which money is spent on—particular types of staff, equipment, etc.

Our proposals would very greatly reduce the degree of control at this level, leaving it largely to academic units to judge how best their income could be spent. Control through the suggested formulae would relate to the determination of the total income of a unit, not to how it may be spent.

As to "skimming over" the difficulties of establishing the formula, this is dealt with at length in our full report referred to in the footnote of our article.

It is argued that units would in practice have little discretion in their spending since it is largely on staff. That a substantial part of departmental expenditure is on staff, of course, is a result of the very practice we most criticize—that departments are given establishments of academic, technical, clerical, staff by their administrators.

Departments will hardly refuse posts (since the cost to the department is nothing, and they bring other resources with them) and they have little if any scope for replacing an academic post with a technical one or vice versa.

If a number of departments have complete freedom in how they spend their revenue it is unlikely that all would choose to spend the same proportion on staff, and some would certainly spend less than others.

Nor is it "unthinkable", as Mr Brind claims, that a department might save enough from its equipment grant to finance a technician. It is not long since a parliamentary committee commented critically on the accumulation of equipment funds of some universities, some of which were large enough to finance a whole department let alone a single technician.

As to units effecting savings by failing to meet their service teaching commitments, this is adequately safeguarded against by the revenue entitlement formula. If service teaching was not provided the service unit would lose the correspond-

ing student load and its revenue would fall. The load, and its attendant revenue, would revert to the parent department or whichever other unit might be equipped to meet the need.

Mr Brind's most misplaced criticism, however, relates to his assertions that we "assume our [our] starting point that universities are provided over-generously with recurrent grant and buildings and use both inefficiently", and that our "time could have been employed more profitably in determining whether universities are in any real degree inefficient...."

Mr Brind has clearly not been keeping up with the literature over the last four years, since this is exactly what we have been doing. Detailed evidence of underutilization of teaching accommodation and of potential economies of scale was presented by a team of six in the period 1971-74 and is fully documented in J. A. Bottomley, et al. Costs and Potential Economies, (Paris, OECD, 1972), in Socio-Economic Planning Sciences (Vol 8, No 1, 1974), in the British Journal of Educational Technology (Oct. 1974), in a number of other journal articles and in three PhD theses.

They even contain the costs per student in different disciplines which we are told we should be working on. It was the results of this study of resource utilization that led us to conclude that there were substantial potential economies of scale, both in accommodation and staff requirements, but there was nothing in the present system to bring about the realization of these potential economies.

As a direct consequence of this we obtained SSRC support for the present investigation of incentives to stimulate the realization of these economies.

It is cause for concern that so many in the universities react with hostility to any suggestion that their efficiency might be improved, and identify "efficient" with "worse". We have had it good for a long time, but the level of government support per student is falling, and it would be a rash man who claimed it will not fall further.

Our proposals for reforming the system of resource allocation within the universities and not designed to sugar-coat the pill, but rather to ensure it is the appendix that is removed not the heart.

Yours faithfully,  
J. E. DUNWORTH  
Department of economics,  
Bristol University.

## Arts for all

from Professor John Blacking

Sir,—Your summary of the "first Labour step" to a new Arts Ministry" (THES, September 12) makes depressing reading. If more public money is to be spent on the arts, why can it not be directed towards making redundant "the artist" as a special category of person, and recreating a society in which all man and woman can participate fully in artistic activities?

This should surely be the aim of any truly "socialist" policy for music. For instance, the greater encouragement of talented musicians may only serve to perpetuate the star system, which stifles creativity and artistic development in any society, because it also encourages the mistaken notion that some people are born with musical talent others.

The Labour Party's experts on music might be taking how it is

that in the United Kingdom only some members of society appear to be musically talented, whereas in many pre-capitalist societies all members display musical talent, though not necessarily at every period of their lives.

The periodicity of musical activity in some individuals is, in fact, important evidence of the significance of social, rather than genetic, factors in the development of musical capabilities that are innate to the species, rather than peculiar to certain people.

Let us hope that before next year's party conference, someone in the arts study group will rewrite those parts of the document that promote the unsound and extraordinarily unsocialist idea that differences in the expression of artistic talent are the result of biological inheritance.

Yours sincerely,  
JOHN BLACKING  
Professor of social anthropology,  
The Queen's University,  
Belfast.

## Sinking ship

from Mr C. A. Ladd

Sir,—I know that higher education is rapidly sinking ship; but would we not wait at least until we are in the lifeboats before making plans to eat one another? Yours faithfully,

C. A. LADD,  
English department,  
Royal Holloway College,  
London.

## Ludwig's translation

from Mr R. A. Atcherley

Sir,—In "The Case for Sanskrit" (THES, September 19) Richard Gombrich wrongly credits Friedrich Schlegel with the famous German translation of Shakespeare. They were the work of his brother, August Wilhelm, in collaboration with Ludwig Tieck.

Yours faithfully,  
R. A. ATCHERLEY,  
Brighton College of Education.

## Extra-mural staffing

from Dr K. J. Heskin

Sir,—I was astounded to read Tom Costello's article on staffing extra-mural courses (THES, August 22). Does he really mean it when he proposes that we should be forced to teach extra-murally on pain of salary decrement and tenure/per promotion blockage?

Is he so far extra-mural that he has lost touch entirely with his colleagues internal problems—for example, heavy work loads and derisory salaries? I lecture in a busy department which is 50 per cent understaffed and, like my departmental colleagues, can only maintain the necessary output of teaching, administration and research by working 60-70 hours per week throughout the calendar year.

This summer, I could only chance my arm with my bank manager to the extent of five days holiday (three working days). Readers of THE THES will be aware from that source, if not from their own experience, of comparable situations in other university departments.

I decided that I would no longer offer my services extra-murally because I could not, in all conscience, spare the time from the commitments which I have contracted to fulfill.

If Tom Costello ever decides to do the same, I am sure that this Labour government will be only too pleased to employ him (in his spare time) as a strike on their teaching education hatcher man (motor-carer mind the quality, feel the width).

Alternatively, he might find employment in the Association of University Teachers on the strength of his ingenuity in finding new and patently inequitable means of increasing the salary differentials in the profession.

Yours faithfully,  
K. J. HESKIN  
Department of psychology,  
The New University of Ulster,  
Coleraine.



## OU extra-maritals

from Mrs Echo Irving

Sir,—As an Open University student doing a third level arts course at York this year, I was irritated by Robin Mead's condescending little piece (THES, August 22). Surely there are more amusing and significant things to discuss about these summer schools than whether or not "largely inarticulate middle-aged mums" indulge in extra-marital sex.

I pondered for some time as to which of the many general characteristics he attributed to the females in his group made them least likely to indulge. Was it being middle-aged, or lutelescent, or reading Woman's Own? But no, in temperance of 50 degrees, it must have been the twosomes which rendered any such activity beyond comprehension.

Incidentally, I wonder how his fellow students classified Mr Mead? Yours faithfully,  
BOGO IRVING,  
Webster House,  
Wilmington, Bristol.

## Scottish FE

from Mr R. F. Farris

Sir,—I note that you published a short report about the forthcoming Education Institute of Scotland delegate meeting at which further education members will be asked to consider various options (THES, September 12).

However, much more is happening in Scotland than would appear from your report. This organization, which represents 1,500 lecturers in further education, was formed in 1966 as a breakaway organization from the EIS because of the unsatisfactory situation of further education within a largely school teacher-dominated EIS.

from Dr E. O. O'Keem

Sir,—Mr Costello's argument is that departments of extra-mural studies cannot fulfil their primary function of taking the university to the people without the cooperation of the staff of internal departments.

He also argues that increased demand in university adult education is not accompanied by a proportionate increase in putting university staff as there is no formal machinery for ensuring such an increase; hence the preponderance of non-university men and the danger that "the unique character of university extra-mural work would suffer."

He wanted to remedy the situation by providing "more levers" for the organizers of extra-mural work; especially by formalizing their relationship with those in internal departments through stronger legal and moral constraints. Thus the present undesirable purgation in which only a few of them are favoured would be broken.

The general weakness of his analysis is his failure to perceive the macroscopic and structural nature of the whole problem. First, his plea for less outsiders and more internal staff is based on a rather narrow elitist traditional concept of extra-mural work; hence his fear that university standards would be eroded and the effect on the public estimation of this university "is bound to be deleterious."

Second, is the assumption that internal staff can do the work better than outsiders. If we accepted a slightly broader community concept of adult education with the working classes, then it would become clear how very questionable these assumptions are.

As to the access to university facilities, that is a matter of administrative efficiency on the part of the organizers. No amount of formal relationship with the internal departments, whether through liaison, funding or even as conditional to promotion would significantly overcome the basic more deep-rooted problems.

Attention would be better directed to clarifying the nature and role of a university, and then to the nature and role of a university extra-mural department and its status in the system.

If the university should "be taken to the people," we have to define what percentage of the population that is, and how best to reach them, for what end with what. Then it would become clearer whether our traditional extra-mural departments with their size, resources and status are the best agencies for achieving our goals.

If not, all departments should be reorganized to do their own extension work with as much, if not more, status than mainstream work.

Failing that, should not the departments redefine their role in the light of their resources and concentrate (like all other university departments) on one main area, instead of trying to cover all subjects superficially? This would help to win them parity of esteem in both prestige and resources with their other colleagues.

Mr Costello's analysis failed to recognize that the present difficulties arose from the poor leadership of the university, not from the extra-mural work, hence its marginality and lower status.

His largely emotive and structural analysis led him to ask the wrong question—patronage or policy in staffing? It is neither; it is more than both of them. If we wanted to reach a large percentage of the population with extra-mural work, in a world of scarce resources, that becomes not only an educational but also a political question.

Yours faithfully,  
E. O. O'KEEM  
Department of social studies,  
Liverpool Polytechnic.

## Student costs

from Professor S. G. G. Macdonald

Sir,—To print a list of UK universities in the order determined by the annual cost per student is instructive; to argue from this list that "the state gets best value from Bath and Durham" is absurd. This may be so, but the list certainly provides no evidence for it. It is well known that the cost per student varies enormously from one faculty to another and that the mix of faculties within a university plays a major part in determining the cost (THES July 11).

For the year 1973-74 the usual academic cost per student at Dundee (1A, the cost excluding central administration and services) only ranged from £480 in Arts to £1,516 in Medicine. Both are below the averages in these disciplines for the UK universities as a whole.

The UK universities as a whole, the proportion of the total population of students in Dundee is the Faculty of Medicine and Dentistry is, however, 30 per cent, a figure more than 50 per cent greater than the average for the universities in the UK which have such faculties. This makes the annual cost per student in Dundee appear high whereas in reality the university emerges as one of the lowest cost universities if a comparison is made faculty by faculty. Significant arguments could be presented by many other universities at the higher cost end of the list.

At a time when there is grave concern in the universities about the economy measures the higher education is likely to introduce such as education sector, headlamps such as the one you used can only increase the worry that forthcoming cuts will be made in an ill-considered manner that will do irreparable harm to the university system.

Yours faithfully,  
SIMON G. G. MACDONALD,  
Professor of physics,  
Dundee University.

More letters page 14

## Classified Advertisements

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Further information on this appointment may be obtained from the Secretary to whom completed applications should be submitted not later than 13th October, 1975. Please quote reference No. 2/59/2000.

The Secretary, Heriot-Watt University  
Edinburgh EH1 1HX.

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Information on conditions of appointment and application procedures is available from the Australian Association of University Teachers, 100 Victoria Street, Melbourne, Victoria 3000. Applications close 24th October, 1975.

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FACULTY OF LAW  
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Information on conditions of appointment and application procedures is available from the Australian Association of University Teachers, 100 Victoria Street, Melbourne, Victoria 3000. Applications close 24th October, 1975.

## AUSTRALIA

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Information on conditions of appointment and application procedures is available from the Australian Association of University Teachers, 100 Victoria Street, Melbourne, Victoria 3000. Applications close 24th October, 1975.

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## Overseas

Western Australian Institute of Technology

## ASSISTANT DIRECTOR

(ADMINISTRATION &amp; FINANCE)

The Institute is a major collage of advanced education with a current enrolment in excess of 10,000 students. The main campus is on a 270 acre site, six miles south of Perth—Western Australia's capital. Eight teaching schools offer courses—through 30 departments—mainly at degree and post-graduate level.

An Administration & Finance Division provides supporting and advisory services to the academic sector, the directorate and Institute's governing Council. The Assistant Director (Administration & Finance) is Secretary to the Council and is responsible to the Director of the Institute for the Institute's economic planning and financial policies, direction of general administrative services, effective utilisation of resources and supervision of the personnel function and building programmes.

The appointee will be expected to provide leadership to branch heads, who are the managers of the various operations within the Division. A person with ability to plan ahead in a dynamic environment is sought to lead the Division in its challenging role. Tertiary qualifications and a demonstrated capacity as a senior administrator will be regarded as essential. Experience as an academic or in educational administration is desirable.

## General

Salary: Starting £14,224 per annum at the current rate of exchange. Salaries are payable in Australian dollars. Assistance with fares for family, removal expenses and accommodation will be paid to the appointee. Conditions of service include superannuation, four weeks annual leave plus public holidays, three months long service leave after each seven years of service, sick leave and assisted study leave.

Detailed applications, including a curriculum vitae and names of three referees, should be submitted not later than 24th October, 1975 to the Migration Liaison Officer, Western Australia House, 115 Strand, London WC2R 0AJ. Further particulars may be obtained from the above address.

Western Australian Institute of Technology

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The appointee will control the Counselling option within the Graduate Diploma in Psychology course and teach in one of the following areas: psychopathology; counselling; learning disorders.

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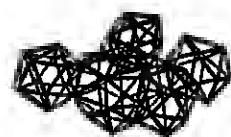
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Appointment may be either permanent or for a short term period of up to three years. A generous short term contract will be negotiated to suit requirements.

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Further information may be obtained from the above address.

When replying please quote reference HES.

ROYAL MELBOURNE INSTITUTE OF TECHNOLOGY  
PRINCIPAL & CHIEF EXECUTIVE

The R.M.I.T., Australia's leading non-university tertiary educational institution is located in the centre of Melbourne. The Institute consists of an Advanced and Technical College and is governed by a Council with the Principal as the Chief Executive Officer.

It is the largest college of Advanced Education in Australia with an enrolment of 10,000 students in the Advanced College and a further 10,000 students in the Technical College. There are 113 different Degree and Diploma courses offered by the Advanced College and approximately 250 Technical and Certificate courses by the Technical College. Also, it is responsible for all External Studies in the Technical Education area for the State of Victoria.

The present Principal is retiring in October, 1976 and a new principal is sought to commence in sufficient time to allow for an effective changeover. The person appointed will be required, in addition to controlling the daily operations, to guide the Institute through one of the most challenging periods in its 88 year history. Not only is the Institute being restructured to provide for an early separation of the Advanced and Technical Colleges, but it has also embarked on a vast building development programme.

It is likely that the qualities we are seeking in the appointee are to be found in an Educationist, University professor or a Business or Community leader. He must have extensive knowledge of business, professional and community requirements in relation to the economic situation which should be provided by vocationally oriented educational organisations.

Applicants should be academically qualified, either with a higher degree or dual-degree with a preferred age of 40-50 years.

Outstanding leadership and managerial abilities are essential and ideally, the person appointed would have gained public recognition in his chosen occupation or profession.

THIS IS ONE OF THE MOST SIGNIFICANT APPOINTMENTS IN THE AUSTRALIAN EDUCATIONAL FIELD AND REQUIRES A PERSON WHO WILL MATERIALLY CONTRIBUTE TO THE DEVELOPMENT OF THE INSTITUTE AND ALSO PLAY A PROMINENT ROLE IN COMMUNITY AFFAIRS.

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THE INSTITUTE ALSO INVITES CONFIDENTIAL NOMINATIONS FROM INTERESTED PARTIES OF NAMES OF PERSONS WHO MIGHT BE CONSIDERED FOR APPOINTMENT

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RESPONSIBILITIES: The appointee to this position would be responsible initially for Readers Service and also library services to external students.

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APPLICATIONS: Applications close 8 October, 1975, and further details may be obtained from the Official Secretary, Office of the Agent General for Victoria, Migration Section, Victoria House, Melbourne Place, Strand, London WC2R 0AJ.

## Colleges of Further Education

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Interviews for the above vacancy will be held during October and the successful candidate will be required to take up the appointment as soon as possible thereafter.

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Further details and application forms are obtainable from The Principal, Ipswich Civic College, Rops Walk, Ipswich IP4 1LT. Completed application forms should be returned to the Principal by the 15th October, 1975.

## Colleges of Further Education continued

WEST GLAMORGAN INSTITUTE  
OF HIGHER EDUCATION  
APPOINTMENT OF  
Principal

Applications are invited from persons with appropriate qualifications and substantial experience in higher/further education for the post of Principal of the West Glamorgan Institute of Higher Education. The Institute will be formed from the merger in September, 1975, of the Swansea College of Education, Swansea College of Technology and Swansea College of Art.

The salary is likely to be initially at a point in the range of Group 7 £10,572-£11,082.

The Authority is seeking to appoint a Principal who will lead the development of the new Institute especially in matters of policy and standards and will have the skills needed to interpret and make the work of the Institute to education, industry, commerce and the community.

The successful candidate will be expected to take up the post as soon as possible in advance of the formation of the Institute so that he or she may play a full part in its planning.

Application forms and further particulars may be obtained from the undersigned on 'request' of a stamped addressed 'closed' envelope quoting post ref. OFI/1.18.75.

Completed applications should be returned not later than, Wednesday, 8th October, 1975.

JOHN BEALE, Director of Education, Education Department, Prince's House, Prince's Way, SWANSEA.

Never send  
to know  
for whom  
the bell tolls

KENNETH JONES

indeed, pedants have been known to lie in ambush for the mistake so that they may have the satisfaction of correcting it.

I remember a drunken, septuagenarian dentist who once had the taste of my childhood teeth. In between receding, breathless moments of Duvic, Cop, tennis matches he had once acquired, he would find himself shaking with the tremors as his drill probed into my dentine, on which the contents of his well stocked mind.

"Great poet," Pope. "A little learning is a dangerous thing." Most people don't get it right. Nine out of 10 think he said "A little knowledge is a dangerous thing." Ton terrified at the time to care much, I stayed the thought away for future reference.

There are, in fact, people who misquote Pope, but I don't happen to have met many of them. It is rather like parodied lines from old Hollywood films. You have to wait a long time before you hear anyone say "Let's get the hell out of here," and even longer to hear someone say "I take me in your leader."

The more interesting brutalities of contemporary are usually those which have substituted a different context for the original line. Four Kipling's image has been fixed by lines like "lesser breeds without the law" which is often quoted as an expression of Imperialist arrogance but comes within a context of Imperialist humility.

The unfortunate King Canute is a victim of a different sort of mistake, usually made by the editors of newspapers who construe him as the sort of foolish fellow who thought he could command the waves. Metaphorically he has turned into anyone who cannot see

that the inevitable is inevitable. We have left way behind the Canute who had himself wheeled down to the seashore in order to dramatise the absurdity of his flustering remarks.

Intellectuals being cynics, a crude understanding just only to get him currency in becoming an irresistible piece of flashy dogmatism for a theme. The vulgar for the Duke of Wellington's witty remarks in recent years has been remarkable, but the dogmatism of the original has often been lost.

The Duke's reply to a messenger who asked if he were Mr. Smith ("If you can believe that, you can believe anything") has now degenerated into a standard adumbration of my incredulous on language. It is Johnson's comment on language—that there is nothing like it for concentrating the mind—has suffered a similar fate.

The really serious misunderstanding to which only an entire university culture can stand as a corrective, however, are those which attach to entire eras of the past. The identification of nineteenth century liberalism with the doctrine of laissez-faire is one of these.

An even more serious one is the use of "feudalism" to describe anything despotic and tyrannical. Like the Canute story, but on a massive scale, this is an exact reversal of the real significance of a fragment of our past.

The past is, to use another famous epigraph, another country; they do things differently there. And in he cut off from the past is to be subjected to one of the most curious and shifting follies of contemporary.

It is a notable feature of totalitarian regimes that they can only operate with a phonic mind. They can only make the present inalterable in their subjects by constructing caricatures of how things were.

A third form of openness is related to wealth. The OVE's educational package deal has received public acclaim. But compared with the University of California's "World Ecology" course in the Education Journal, the American course has the potential to be not only far more innovative but also to be the nucleus of British educational change in the late 1970s and the 1980s.

As to being open to ideas the OU has shown flexibility but also an increasing tendency towards "servicing" courses and the delivery of certain general academics in which perceived or concrete needs of students or overall degree patterns are sacrificed to an individual's whim or powers of persuasion.

In many respects the OU is much more closed than it first appears to be and there will undoubtedly come

## How closed is the OU?

Lord Crowther's inaugural lecture as Chancellor in 1969 listed four main areas in which the Open University was to be different from other universities. As the "University of the second chance" it was primarily regarded as open to people.

James and Whitehead have attempted to argue (the *Times*, July 4) that it is "proving more attractive to the children of the workers". Their case rests on an erroneous comparison between parents of conventional students with those of conventional students. However, the average age of OU students is much higher and the age range is considerably greater.

Most of the OU's students have already embarked upon a career which has taken them away from their class origins. If we include in this the one third of the OU population who are teachers (who have already had one chance) and the increasing number of OU students who are predominantly middle class then we already have an upwardly mobile student body.

The masses of shop-floor workers are practically negligible and have a high drop out rate due to various factors such as lack of facilities, loss of overtime, shift work, and an onerous scale, this is an exact reversal of the real significance of a fragment of our past.

The past is, to use another famous epigraph, another country; they do things differently there. And in he cut off from the past is to be subjected to one of the most curious and shifting follies of contemporary.

It is a notable feature of totalitarian regimes that they can only operate with a phonic mind. They can only make the present inalterable in their subjects by constructing caricatures of how things were.

A third form of openness is related to wealth. The OVE's educational package deal has received public acclaim. But compared with the University of California's "World Ecology" course in the Education Journal, the American course has the potential to be not only far more innovative but also to be the nucleus of British educational change in the late 1970s and the 1980s.

As to being open to ideas the OU has shown flexibility but also an increasing tendency towards "servicing" courses and the delivery of certain general academics in which perceived or concrete needs of students or overall degree patterns are sacrificed to an individual's whim or powers of persuasion.

In many respects the OU is much more closed than it first appears to be and there will undoubtedly come

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## Colleges of Further Education continued

MANCHESTER  
MANCHESTER POLYTECHNIC  
FACULTY OF COMMUNITY STUDIES  
DEPARTMENT OF EDUCATION  
LECTURER IN EDUCATION  
AND ORGANIZATION

Applications are invited for a Lecturer in Education and Organization to the Faculty of Community Studies, Manchester Polytechnic. The post is full-time, permanent, and involves teaching and supervising students on the B.A. (Hons) in Education and Organization. The successful candidate will be expected to contribute to the development of the Department and to the wider community.

Salary: £9,572-£11,126 (at the current rate of exchange). Salaries are payable in Australian dollars.

Fares for family and removal expenses are payable. Conditions of service include superannuation (similar to FSSU), six weeks annual leave plus public holidays, three months long service leave on completion of each seven years of service, sick leave and assisted study leave.

Appointment may be either permanent or for a short term period of up to three years. A generous short term contract will be negotiated to suit requirements.

Detailed applications including a curriculum vitae and names of three referees should be submitted not later than 24th October, 1975 to Migration Liaison Officer, Western Australia House, 115 Strand, London WC2R 0AJ.

Further information may be obtained from the above address.

When replying please quote reference HES.

## Colleges of Art

CARDIFF COLLEGE OF ART  
School of Art Education

Applications are invited from suitably qualified and experienced candidates for the post of Principal Lecturer in Art Education. The post is full-time, permanent, and involves teaching and supervising students on the B.A. (Hons) in Art Education. The successful candidate will be expected to contribute to the development of the Department and to the wider community.

Salary: £9,572-£11,126 (at the current rate of exchange). Salaries are payable in Australian dollars.

Fares for family and removal expenses are payable. Conditions of service include superannuation (similar to FSSU), six weeks annual leave plus public holidays, three months long service leave on completion of each seven years of service, sick leave and assisted study leave.

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THE OPEN UNIVERSITY  
IN SCOTLAND

ADMINISTRATIVE ASSISTANT  
Applications are invited for an Administrative Assistant to the Open University in Scotland. The post is full-time, permanent, and involves administrative work in the Open University in Scotland. The successful candidate will be expected to contribute to the development of the Department and to the wider community.

Salary: £9,572-£11,126 (at the current rate of exchange). Salaries are payable in Australian dollars.

Fares for family and removal expenses are payable. Conditions of service include superannuation (similar to FSSU), six weeks annual leave plus public holidays, three months long service leave on completion of each seven years of service, sick leave and assisted study leave.

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## Colleges of Education

St. Mary's College, Strawberry Hill,  
Twickenham TW1 4SX

Principal: The Very Reverend T. P. Cashin, C.M., B.A.

Applications are invited for the following posts:

## Lecturer in Sociology

required for 1st January 1976. Courses are offered in this Main Subject department to Certificate, B.Sc., and B.Ed. students, and candidates should be able to contribute substantially to these. Experience of Social Science teaching in schools would be an advantage.

## Lecturer in Psychology

must be highly qualified, to join team teaching Psychology on 4 courses—Teacher's Certificate, B.Ed. (Ordinary and Honours), B.Sc. (London External), and New Unit Report B.Sc. Degree.

This is NOT an Educational Psychology appointment. An applicant interested in experimental psychology is sought. The salary for each of these posts will be in accordance with the Folham Scales plus London Weighting allowance.

Applications should be sent to the Principal, by the 30th October 1975, and should include the names of three referees. (There are no special application forms).